



University of Arizona Cooperative Extension

Greenlee County Annual Report 2019

◀◀◀ Improving Lives, Communities, & the Economy ▶▶▶



THE UNIVERSITY
OF ARIZONA

4-H Youth Development

Greenlee County Cooperative Extension 4-H youth development programs provide educational opportunities for Cloverbuds (children 5-8 years old) and for more traditional 4-H youth, ages 6-18. Our 4-H members develop life skills, increase knowledge and competencies through participation in clubs, projects, educational and social events, service, and career exploration.

- *4-H Leaders provided youth with the opportunity to develop life skills and become active members in their communities through service projects.*
- *85% of Greenlee 4-H youth members say that 4-H gives them the opportunity to develop confidence in themselves.*
- *60% of 4-H members identify with being comfortable speaking in front of groups.*
- *Over 70% of 4-H members feel that they are able to identify ways to meet their community's needs.*
- *Year-end evaluations showed that 4-H taught youth members how to contribute to a team.*
- *Over 90% of youth members stated that 4-H taught them how to accept responsibility for doing a job.*



2019 - By the Numbers:

- 50 youth participated in Greenlee County 4-H clubs.
- Two adult volunteers attended the Western Regional Leaders Forum in San Francisco, CA.
- Four youth attended Leadership Washington Focus in Washington, D.C.
- 16 volunteers donated 500 hours of their time, worth \$12,415.

Program Responsibility: Ashley Jeffers-Sample, Amber Sumner

Nutrition and Physical Activity Education

In 2015, a focus group was held in Greenlee County, comprised of various community members and representatives. Educating individuals and families within the community on health, nutrition, and fitness were identified as a priority. The Supplemental Nutrition Assistance Program-Education (SNAP-Ed) is able to promote healthy nutrition and a physically active lifestyle for residents of our communities. The SNAP-Ed program works in concert with the AZ Health Zone, a public and private partnership led by the Arizona Department of Health Services (ADHS), Bureau of Nutrition and Physical Activity, which partners with the University of Arizona Cooperative Extension.

- *An active School Health Advisory Committee (SHAC) is in place at Duncan Elementary School. The committee's role is to help revise and implement their Local Wellness Policy, and to promote a healthy environment for the students and staff. The SHAC has been instrumental in starting a walking club, sponsors runs, encourages activity between subjects in the classroom, and working to improve recess and teacher wellness facilities.*
- *Direct Education takes place at the Duncan Head Start, Duncan Elementary School, and county libraries to increase knowledge on nutrition, gardening, and physical activity.*
- *The KIDZ Cooking Club, a summer program in cooperation with libraries, promotes good nutrition for youth in Clifton and Duncan. Participants learn new cooking skills and healthy eating habits.*
- *30 individuals helped stencil Duncan School sidewalks to be used for games promoting physical activity.*
- *Three assessments were conducted at recreational sites to provide recommendations to increase public usability.*
- *Gardening students in Duncan School, grades 3-5, baked veggie pizzas and loaves of whole wheat & honey bread as nutrition experiences, helping them learn food preparation skills and the importance of eating foods that promote health and wellness.*



2019 - By the Numbers:

- 176 students and 14 volunteers at Duncan Elementary School and Duncan Head Start participated in nutrition and physical activity lessons.
- Conducted 15 total sessions of the KIDZ Cooking Club at the Duncan and Clifton Libraries for 66 participants and 8 volunteers.
- \$71,800 was obtained in grants to support this program.

Program Responsibility: Marla Lunt, Kim McReynolds

Horticulture

Horticulture, specifically home gardening education, was identified as a need in 2011. This program helps to educate participants on a wide variety of horticultural topics including plant selection, pest identification, watering and irrigation systems, and general horticultural concerns. Associate Master Gardeners agree to volunteer time back to the program through a variety of opportunities.

- *Area gardeners who participated in gardening classes now have the knowledge and skills to properly care for their gardens and trees.*
- *Gardeners have the opportunity to informally discuss gardening concerns and tips at Brown Bag Gardener lunches held at the Extension office.*
- *Students in the Duncan Unified School District learn how to grow vegetables, graft fruit trees that are planted at the different school sites, and use and maintain a greenhouse used to grow plants.*



- *Three AmeriCorps members provided assistance to the seed libraries, school programs, brown bag lunches, and in preparation of monthly gardening classes.*
- *Production of several gardening videos that are posted to YouTube have increased the availability of educational opportunities for people who are not able to make classes in-person.*
- *Monthly newspaper articles disseminate gardening information to county residents.*

2019 - By the Numbers:

- 762 horticulture inquiries were provided gardening information.
- 1,656 hours were recorded by volunteers, valued at \$41,118.
- 17 gardening workshops were held for 163 people.

Program Responsibility: Bill Cook

AmeriCorps Members: Kim Johnson, Skylar Jones, Mary McGetrick

Science, Technology, Engineering, and Math (STEM)/Ag Literacy

Nationwide only 22% of high school seniors are considered proficient in science (National Assessments of Educational Progress, 2015). From 2000 to 2014, more students earned an undergraduate degree in science and engineering in China and the European Union compared to the United States (National Science Board Science-Engineering Indicators, 2018). Youth understanding and appreciation of science, engineering, and technology, as well as a connection to the environment and agriculture presents a critical opportunity for Cooperative Extension.

Participants in STEM programs:

- *Engage in hands-on, problem solving activities utilizing STEM skills.*
- *Reduce the “fear” or “boredom” with STEM topics throughout their educational career.*
- *Foster creativity and innovation.*
- *Gain interest in careers in the areas of science, technology, engineering and mathematics.*
- *Elevate their future prospects.*



2019 - By the Numbers:

- Taught lessons in 20 classrooms at Metcalf, Fairbanks, and Morenci High School.
- Organized, provided volunteer training, and taught at the first 4th Grade Water Festival at Metcalf Elementary.
- Taught multi-session STEM events held at the Clifton and Duncan libraries with a focus on technology and natural resources. Sessions were taught during spring, summer, and fall school breaks.
- Assisted 6 garden committee members in starting a school garden in Morenci.
- Two youth from Clifton attended a 5-day Robotics Camp on the UA Campus in Tucson.

Program Responsibility: Eve Williams

Noxious Weeds

The spread of state and federally listed noxious weeds on public, state trust, and private lands threatens biodiversity and native plant species, decreases forage and habitat for domestic and wild animals, and causes economic hardship for landowners. Invasive species in the United States are estimated to cause damages of \$137 billion annually, with non-native invasive weeds making up \$34 billion of that amount (Montana State University, Extension Agricultural Economics). Southeastern Arizona has relatively small infestations of noxious weeds compared to other areas in the West. This continues to give us a unique opportunity to be proactive and control weeds so that it doesn't become economically prohibitive.

- *There are significant infestations of Russian knapweed, whitetop, yellow starthistle and Malta starthistle in Greenlee County.*
- *Landowners who attend a workshop are able to identify noxious weeds that are growing in the county.*
- *Workshop participants are trained in the proper treatment and disposal of noxious weeds, including sprayer calibration and complying with herbicide labels.*
- *Coordinated community efforts will reduce the number of acres infested with noxious weeds.*



2019 - By the Numbers:

- One noxious weed workshop/field identification was held with 25 participants.
- 2,131 acres were inventoried or monitored for noxious weeds.
- Cooperators treated 1,670 acres of noxious weed infestations of Russian Knapweed, Yellow and Malta Starthistle, and Whitetop with grant funded herbicide.
- Assisted the county in applying for and received a grant for \$26,000 to support the program.

Program Responsibility: Kim McReynolds

Rangeland Management and Livestock Production

Rangelands are extremely important to society for the goods and services they produce and for the ecological services they provide. There is a need to balance livestock grazing with natural resources. This is especially important as livestock producers have been reducing and managing herds as a result of drought conditions for the last 16 years. Workshops are held that teach various subjects relating to rangeland management, monitoring, livestock nutrition and other identified needs requested by clientele. Work is done collaboratively and both the local and state levels. In partnership with ranchers, Bureau of Land Management, US Forest Service, and Natural Resources Conservation Service, allotments are monitored for long-term trend in vegetation.

- *Ranchers and land management agency personnel have a better understanding of rangeland management and monitoring.*
- *Greenlee County was represented at the National Cattleman's Beef Association's "BQA – Train the Trainer" class in Boise, Idaho.*
- *Provided assistance to a Greenlee County rancher in writing a grant proposal/application for Mexican Wolf Cost Avoidance funding to the Arizona Livestock Loss Board.*
- *A Marketing Workshop held in Graham County was attended by over 50 people from 4 different counties.*



- *Conducted a Needs Assessments in survey form as well as input at Cattle Growers' meetings.*
- *Long-term rangeland monitoring data is available for Bureau of Land Management permittees to use in management decisions and for federal employees to use in resource analysis.*
- *Healthy rangelands support livestock production, wildlife habitat and other natural resource benefits for society.*

2019 - By the Numbers

- 12 sites on 4 BLM allotments were monitored. Monitoring reports were prepared for each allotment and given to agencies and ranchers.
- 7 sites were sampled for forage nutrition analysis.
- \$6,400 was obtained in grants to support the forage nutrition study.

Program Responsibility: Nate Brawley, Joshua Grace, Kim McReynolds, Dustin Hancock

Special Events that Cross All Program Areas

Extension Day at Blue

The Duncan office closed the doors for one day in May and November and travelled to the Blue School to provide programming for students and the community.

Programs included:

- *Computer Science and Coding*
- *Nutrition and Physical Activity*
- *Soil Texture, Chemistry, and Biology*
- *Plant Propagation*

Staff interacted and taught 11 students in the spring and 8 in the fall during the morning session. After lunch, the community was invited to attend the afternoon session.



Pumpkin Patch Day



- *A pumpkin patch was grown at the Extension office. Students learned how a pumpkin grows, how to measure and weigh, played a pumpkin-based game that was physically active, and enjoyed a healthy snack with pumpkin (taking home pumpkin recipes).*
- *Excess pumpkins were provided to Our Neighbors Farm and Pantry.*
- *Four AmeriCorps members from Greenlee, Graham, and Cochise counties assisted during the day.*

2019 - By the Numbers

- Blue School students and community member increased their knowledge by (Spr-Fall): Computer, 57-78%; Nutrition, 39-46%; Soils 63-68%; and Plant Propagation, 73-48%.
- 126 students from Duncan Schools and 17 home schooled youth participated in the Annual Pumpkin Patch Day.
- 39 volunteers donated 108 hours helping to run the Pumpkin Patch Day, valued at \$2,682

Greenlee County Cooperative Extension

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

Cooperative Extension Vision: Cooperative Extension is a vital national leader in creating and applying knowledge to help people build thriving, sustainable lives, communities and economies.

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Amber Sumner, Program Coordinator, 4-H Youth Development
Eve Williams, Instructional Specialist, STEM/Ag Literacy

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 Life Sciences, The University of Arizona.

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