

## Cooperative Extension

Yavapai County



## Yavapai County Cooperative Extension

Working together to expand human potential, explore new horizons and enrich life for all.

2023 Annual Report



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#### **From the County Extension Director**

Dear Yavapai County Stakeholders,

Thank you so much for taking the time to read this Annual Report, a synopsis of the accomplishments and services provided by Yavapai County Cooperative Extension. If this is your first time hearing about us, that's great; Extension is an arm of the University of Arizona that offers a wide range of programs such as 4-H Youth Development, Agriculture, Natural Resources, and Family, Consumer, and Health Sciences education. The common thread that joins these programs together is our goal of enhancing stakeholder lives by extending science-based knowledge as dictated by the specific needs and priorities of Yavapai County.

Within these pages you will read about how Yavapai County Cooperative Extension was able to serve more than 18,000 stakeholders with direct service and education. Highlights include 4-H Youth Development more than doubling last year's enrollment numbers, 1,600 local schoolchildren participating in 4-H STEM programs, and the James 4-H camp, a place for groups from Yavapai County and beyond to enjoy the beauty of Mingus Mountain. Further, Extension delivered several programs which promote healthy living, such as AZ Health Zone and the National Diabetes Prevention Program. In order to ensure that Yavapai County restaurants are safe places to dine, 114 Food Safety Managers were instructed, and our partnership with First Things First allowed us to offer training and technical assistance to the childcare professionals who are responsible for working with our children. Agriculture and Natural Resources are flagship programs of Cooperative Extension, and we served stakeholders by providing support to residential and commercial producers alike. The Yavapai County Master Gardener program delivered horticultural expertise free of charge through classes, workshops, and our Help Desk, and the Statewide Commercial Viticulture program supported a growing Arizona wine industry through programs focused on improving fruit quality and sustainability. Ranching is a fundamental part of Yavapai County agriculture, and Extension played a key role in educational and collaborative capacities while helping local ranchers and land managers find solutions to tough problems.

While our faculty and staff are made up of talented individuals who guide the mission of Extension in Yavapai County, our efforts would not be possible without the dedicated support of our local volunteers. Almost 18,000 hours were logged by Extension volunteers, made up of Master Gardeners, 4-H leaders, Food Safety Industry Council Members, and our Advisory Board. It is this collaboration that makes Yavapai County Extension special, and we owe them a debt of gratitude for their service.

In addition, Cooperative Extension would like to express our sincere appreciation for the generous financial support, facilities, and services provided by the Yavapai County Board of Supervisors. We will continue to leverage those contributions through collaborations and grant monies to deliver the high-quality programming that the stakeholders have come to expect. The future is bright for Yavapai County, and Cooperative Extension is excited for the opportunity to serve its residents moving forward.

Sincerely,

Matt Halldorson

**County Extension Director** 

mitsballa

Associate Agent, Agriculture and Natural Resources



# Yavapai County Cooperative Extension Faculty



Matt Halldorson, MS
Yavapai County Extension Director
Associate Agent, Agriculture and Natural Resources
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**Claire Oberst, Ph.D.**Associate Agent, 4-H Youth Development



Hope Wilson, MPH, RDN

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Andrew Brischke

Mohave County Extension Director

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# Yavapai County Cooperative Extension Staff



## **Program Staff**

Mary Barnes, Program Coordinator, Sr., Agriculture and Natural Resources & Master Gardener Programs, barnesm@arizona.edu

Michelle Buenafe, Child Care Health Consultant, Family, Consumer, and Health Sciences, michellebuenafe@arizona.edu

Bree Daugherty, Mohave County Program Coordinator, Sr. - AZ Health Zone/SNAP-ED, daugherty@arizona.edu

Stacy DeVeau, Program Coordinator, Sr., 4-H Youth Development STEM Programs, sdeveau@arizona.edu

**Geovani Donaldson,** Instructional Specialist, AZ Health Zone/SNAP-ED, gdonaldson1@arizona.edu **Iris Higgins,** Child Care Health Consultant, Family, Consumer, and Health Sciences, irishiggins@arizona.edu **Nicole Lund,** Community Outreach Professional, AZ Health Zone/SNAP-ED, nmlund@arizona.edu

Caleb Miller, Mohave County Research Specialist - Rangeland Management, calebnilesmiller@arizona.edu

Aimee Novak, Program Coordinator, Food Safety Education

Natalie Olson, 4-H Outreach Specialist, nolson1@arizona.edu

#### **Administrative Staff**

Domineque Arias, Administrative Assistant, darias1@arizona.edu

Pamela Denney, Coordinator, Finance and Administration, pdenney@arizona.edu

Lisa Gerber, Coordinator, Finance and Administration, Igerber@arizona.edu

Karen Pizzuto, Manager, Finance and Administration, pizzuto@arizona.edu

Sierra Sheeks, Administrative Assistant, ssheeks@arizona.edu

#### **On-Call Staff**

Pamela Edwards, Administrative Assistant, edwards8@arizona.edu

## Yavapai County Cooperative Extension Office Locations



Prescott Office 840 Rodeo Drive, Bldg. C Prescott, AZ 86305 928-445-6590



Camp Verde Office 2830 Commonwealth Drive #103 Camp Verde, AZ 86322 928-554-8992

## Yavapai County Cooperative Extension Advisory Board Members 2023-2024













Bill Marmaduke, Chair, Master Gardener

Angela Teskey-Peterson, Co-Chair, 4-H Leader/Rancher

Chad Hetherwick, Food Safety/Nutrition

Rich Peterson, Agriculture

Shanti Rade, Small Agriculture Producer

**Gail Steiger**, Rancher

## **Yavapai County Board of Supervisors**

Craig L. Brown, Chairman

Donna G. Michaels, Ph.D., Vice-Chair

Harry B. Oberg

**James Gregory** 

**Mary Mallory** 

## **4-H Youth Development**

## **CLAIRE OBERST**

Associate Agent, 4-H Youth Development

**Yavapai County 4-H** engages youth ages 5-18 in the participation of high-quality positive learning activities that promote the exploration of leadership, communication, community service, healthy living, and civic engagement. 4-H helps develop competent, caring, and actively engaged citizens who strengthen our community. Through research-based curriculum and university ties, 4-H opens a world of possibilities to youth and their families who want to explore their spark.

Project opportunities in Yavapai County 4-H include gardening, small stock animals, large stock animals, cake decorating, public speaking, bee keeping, sewing/weaving, blacksmithing, horses, robotics, rocketry, shooting sports, entomology, woodworking, photography, veterinarian science, Cloverbuds and more! Visit https://extension.arizona.edu/4h/yavapai to enroll, volunteer or donate.

#### Because of the Yavapai 4-H Program...

- Teen members earned the opportunity and were invited to attend National 4-H events such as the Ignite Summit in DC, National 4-H Congress in Atlanta, and the Western Regional Roundup in Denver.
- 35 members received Youth for the Quality Care of Animals certification from our instructor-led training.
- 63 members attended MoYava at the James 4-H Camp, receiving over \$3,000 in Tractor Supply scholarship funding.



4-H Youth Development Staff:

Natalie Olson, 4-H Outreach Specialist, nolson1@arizona.edu

Stacy DeVeau, Program Coordinator, Sr., 4-H Youth Development STEM Programs, sdeveau@arizona.edu

Margaret Carroll, Assistant in Extension, 4-H Camping Programs, mcarroll4@email.arizona.edu

- 293 4-H enrolled youth members in 11 chartered clubs, up from 128 members and 6 clubs in 2022.
- **65** 4-H volunteers reported **4680** hours.
- **52** school visits reaching **1604** students.
- ◆ 4255 residents served through community outreach events and collaborative educational programs.

## James 4-H Camp

#### MARGARET CARROLL

Assistant in Extension, 4-H Camping Programs mcarroll4@email.arizona.edu

## The Harold and Mitzie James 4-H Camp and Outdoor Learning Center

(James 4-H Camp) located in Yavapai County, is owned by the University of Arizona, and operates under the direction of Arizona Cooperative Extension. The 55-acre property is at the heart of the Arizona 4-H Program. The camp serves AZ 4-H youth, school groups, and families in all Arizona counties and Tribal Nations. Yavapai County 4-H has their own session of camp each summer, and our teens take part in a 4-H teen leadership camp called Journey of Opportunities for Leaders of Tomorrow (J.O.L.T.) Other Yavapai County groups who use the camp include Granite Mountain 5<sup>th</sup> grade students, Yavapai Exceptional Industries, the Launchpad Teen WEB conference, and AZ Game & Fish.







- In 2023, the James 4-H Camp served **1312** guests.
- Cooked **9603** meals.
- A 2022 gift from the Marley Foundation provided funding for the construction of a new Pavilion and Youth Lodge completed in 2023.

## **HOPE WILSON**

## **Nutrition & Physical Activity**

Area Associate Agent, Family, Consumer, and Health Sciences, hopewilson@arizona.edu

Yavapai County Cooperative Extension offers a variety of nutrition and physical activity programs designed to improve the health and well-being of Yavapai County residents across their lifespan.

The goal of AZ Health Zone, Arizona's Supplemental Nutrition Assistant Program Education (SNAP-Ed) Program, is to support Arizona families with limited resources achieve wellness by making healthy choices and staying active. Yavapai County Cooperative Extension's (YCCE) AZ Health Zone programming focuses

on food systems strategies to increase access and consumption of healthy foods; and early care and education (ECE) strategies that promote nutrition and physical activity in ECE settings including training for childcare providers and promoting outdoor activities for families with initiatives like Nature Niños.

YCCE also participates in the National Diabetes Prevention Program (DPP), a year-long lifestyle change program proven to help people with prediabetes prevent or delay development of type 2 diabetes.



### Because of the Yavapai Nutrition and Physical Activity Programs...

- 93% of caregivers increased their confidence in spending time outdoors with their children.
- 100% of caregivers reported that their child's willingness to taste fruits AND vegetables increased.
- 95% of adults felt more confident about growing their own food.
- 80% of adults were motivated to eat more fruits and vegetables.
- 100% of older adults planned to eat more fruits and vegetables in the next week.
- 83% of older adults planned to increase their physical activity in the next week.
- DPP participants lost an average of 2.2% of their starting body weight.
- DPP participants Increased the average weekly physical activity by 38%.

#### Family Consumer Health Sciences Staff:

**Geovani Donaldson,** Instructional Specialist, SNAP-ED, gdonaldson1@arizona.edu

Nicole Lund, Community Outreach Professional, AZ Health Zone/SNAP-ED, nmlund@arizona.edu

- 2255 Yavapai County residents participated in at least one AZ Health Zone activity.
- **1500** children and caregivers attended at least one of **11** Nature Niños events.
- 335 Yavapai County residents participated in at least 1 of 17 nutrition education classes conducted.
- Held **18** AZ Health Zone Community Events.
- 2 cohorts participated in the year-long Diabetes Prevention Program.
- Planted 1 new ECE garden and repaired the gate at 1 existing ECE garden.

## **Food Safety**

### **HOPE WILSON**

Area Associate Agent, Family, Consumer, and Health Sciences, hopewilson@arizona.edu

## Yavapai County Cooperative Extension

(YCCE) provides food safety education and technical assistance to licensed food establishments, community members that want to start a food business, farmers markets and consumers in Yavapai County.

The Yavapai County Food Safety Partnership, established in 1999, is comprised of the Environmental Health Unit of Yavapai County Community Health Services (YCCHS) and YCCE. YCCHS is responsible for food establishment licensing and regulations. YCCE provides research -based resources, expertise, and education as part of this partnership. Preventing foodborne



illness and operating a commercial kitchen requires comprehensive knowledge and understanding of food safety and sanitation practices. Persons in charge or managers of food service operations are required by law to be certified in food handling and safe sanitation.

YCCE Food Protection Manager Training delivers comprehensive food safety information designed to help participants pass the Food Protection Manager Certification Exam. This 6-hour training is offered virtually and in-person monthly in Yavapai County. YCCE also coordinates the Yavapai County Food Safety Industry Council (FSIC) in partnership with YCCHS. This advisory body is made up of thirteen members appointed by the Yavapai County Board of Supervisors, ten of whom are industry representatives and three community

representatives at large. YCCE and YCCHS serve in ex-officio capacity.

#### **Food Safety Staff:**

Aimee Novak, Program Coordinator, Food Safety Education
Bree Daugherty, Mohave County Program Coordinator, Sr. - AZ Health Zone,
daugherty@arizona.edu

- The Food Protection Manager training was offered in Yavapai County 16 times (12 virtual and 4 inperson).
- 114 participants attended the Food Protection Manager trainings (86 attended the live virtual and 31 attended the in-person training held in either Prescott or Cottonwood).
- **87%** of participants passed the certification exam.
- The FSIC met 2 times to conduct business to identify and address food safety issues in Yavapai County.
- Completed **2** new issues of Food Safety Scoop food safety education newsletter and, in partnership with YCCHS, mailed to all licensed food establishments in Yavapai County.
- 83 licensed food establishments in Yavapai County received the 2023 Golden Plate Award awarded to licensed food establishments in Yavapai County that had no critical food safety violations during inspections throughout the calendar year.

## **Early Childhood Health & Safety**

### **HOPE WILSON**

Area Associate Agent, Family, Consumer, and Health Sciences, hopewilson@arizona.edu

Early childhood is a critical time in a child's

development. Early care and education (ECE) professionals play an important role in promoting young children's early brain development, health, and well-being.

Child Care Health Consultants (CCHCs) provide training and technical assistance to ECE professionals at child care centers, preschools, and family child care homes to increase knowledge and implementation of health and safety best practices. Yavapai County

Cooperative Extension (YCCE) is funded to provide Child Care Health Consultation through an intergovernmental agreement with the Arizona Early Childhood Development and Health Board, better known as First Things First.

Two new CCHCs, one full-time and one parttime, were hired by YCCE during the spring of 2023 to provide services to the 40 child care sites enrolled in Quality First in the Yavapai Region. Quality First is Arizona's Quality Rating and Improvement System (QRIS) which provides support to improve the quality of child care.



#### Because of YCCE Early Childhood Health and Safety Programs...

- 100% of child care providers stated they learned information that will improve the health and safety of the children in their care.
- 76% of child care providers increased their knowledge of health and safety practices.
- 97% of child care providers plan to implement a new health and safety practice within the next 6 months.
- 52 Yavapai County child care employees responded to a statewide needs assessment survey to better understand the Professional Development needs of ECE professionals around health, safety, and wellness.

### Early Childhood Health & Safety Staff:

Michelle Buenafe, Child Care Health Consultant, Family, Consumer, and Health Sciences, michellebuenafe@arizona.edu Iris Higgins, Child Care Health Consultant, Family, Consumer, and Health Sciences, irishiggins@arizona.edu

- CCHCs conducted **23** trainings reaching **88** childcare professionals serving **636** children.
- Conducted 29 hands on health demonstrations with children at Quality First sites.
- Distributed 214 educational materials and training reinforcement items to centers.
- Completed 31 childcare sites' health and safety assessments/checklists.
- Completed 30 childcare sites' action plans to meet health and safety goals.
- Completed **26** childcare site observations.
- Provided **195.25** hours of training, technical assistance and support to child care providers.

## **MATT HALLDORSON**

## **Arizona Commercial Viticulture**

Yavapai County Extension Director Associate Agent, Agriculture and Natural Resources mmhalldorson@arizona.edu

## Extension delivers objective, science-based information to

stakeholders, and in its first full year, the Arizona Commercial Viticulture program focused on just that. 2023 began with a 2-day Summit held at the Biosphere II, where growers from Yavapai County and beyond were encouraged to give feedback to the University of Arizona about how the land grant university could best support them. The top 3 Extension priorities identified were irrigation, pest, and disease management, and that is where efforts were focused.

Programming included irrigation and cover crop strategies for winegrapes in order to maximize fruit quality as well as Integrated Pest Management and

Pesticide Safety Workshops. All topics focused on sustainable vineyard management that uses a combination of techniques, including understanding the ecology of the vineyard and only using pesticides when necessary.

The year concluded with a Viticulture Symposium at the University of Arizona's Controlled Environment Agricultural Center, where presentations focused on water, pest, disease, and soil management, climate, small business development, and a "Growing Season in Review" workshop which allowed growers to interact with their peers while discussing the successes and challenges from the 2023 vintage.

## 2023- By The Numbers

- 800 Stakeholders were served with direct education.
- 25 vineyard visits were conducted to support Arizona Growers.
- 66% of growers surveyed said they are considering making a change in their management practices to incorporate something they learned from UA Extension.
- 100% of stakeholders who attended the Vineyard Integrated Pest Management workshop said they would likely attend another.
- Average reported increase in subject matter knowledge by viticulture symposium attendees:
  - Irrigation (44%)
  - IPM **(54%)**
  - Pathology (66%)
  - Soils (42%)

### Because of the UA Viticulture...

- A commercial viticulture needs assessment was conducted to identify grower priorities.
- University of Arizona faculty and staff from multiple disciplines supported AZ growers.
- "Understanding the Grape Leaf Skeletonizer: Management in Commercial Vineyards" was published in collaboration with the Arizona Pest Management Center.
- 2 statewide industry events were held to identify and support the needs of growers.
- Urban agriculturists were educated about smallscale grape and wine production.



Measuring shoot lengths in order to quantify vine growth.

## **Master Gardener Program**

## **MARY BARNES**

Program Coordinator, Sr., ANR & Master Gardener Programs, barnesm@arizona.edu

The Yavapai County Master Gardener Program trains and supports engaged citizens to become valuable volunteers who in turn support horticultural interests in the community, where they share science-based horticulture practices and materials. In 2023, 26 citizens completed the 17 -week training conducted by Matt Halldorson and UA Specialists, to become volunteers. This year Matt Halldorson conducted our first 7-week evening Zoom Home Horticulture class for 28 residents who wanted the science-based education without the volunteer requirement. We plan to make this an annual event.

Master Gardeners support the community by staffing horticulture help desks in Prescott and Because of the UA Agent and Specialist support... Camp Verde, giving talks to the public, staffing information tables at public events, mentoring • gardeners, and working with 15 non-profits such as museums, schools, community gardens, and • city/town landscapes. The program also provides numerous educational publications via the Yavapai Gardening and Natural Resources websites.



- Root cause of Paulden farm flower crop failure was identified.
- Russet mite infestation was identified in Chino Valley local commercial greenhouse.
- 24 plants were identified on 21 acre pasture in an effort to determine cause of 2 dead horses in Chino Valley.
- UA Specialist provided input on acceptable levels of E.coli on using irrigation ditch water in the Verde Valley.
- Site visit to Congress identified root cause of many stressed plants/trees as a lack of water.
- Request from town of Prescott Valley for information on raising chickens resulted in collaboration with 4-H on a presentation to the public and the creation of a Yavapai County Poultry Regulations by Community document.

- ◆ 132 Master Gardeners reported 13,326 volunteer hours and accrued 1886 continuing education hours.
- **31** Master Gardeners staffed **2** Help Desks, processing **1086** contacts.
- Our Yavapai Gardening webpage had **3151** views.
- 97 plants were added to our Yavapai County Native and Naturalized Plants database, bringing the total plants to **1898** Yavapai County plants.
- 3492 residents received horticulture information at 14 events, plus summer information tables at Farmers Markets in Prescott, Camp Verde, and Sedona.
- **61** Speakers' Bureau presentations were given to a total of **1200** attendees.

## Rangeland

## ANDREW BRISCHKE

Area Associate Agent, Agriculture & Natural Resources, brischke@cals.arizona.edu

In response to extreme and subsequent exceptional drought conditions in 2020 and 2021, the University of Arizona Cooperative Extension created a partnership with local ranchers and the Prescott National Forest (PNF) to develop solutions to the Rangeland Monitoring needs of both producers and land managers. After a review from UA Cooperative Extension, objective sciencebased methodologies were applied.

This has caused a renewed interest in appropriate rangeland monitoring. Two rangeland monitoring workshops were hosted in 2022 and an additional Research Specialist, Caleb Miller, was hired for 3<sup>rd</sup>-party monitoring through the Three-Forest Monitoring Agreement. Additionally, a collaboration between local and state Cattle Growers' Associations, Natural Resource Conservation Districts, UA Extension, and PNF was established to develop a memorandum of understanding (MOU) in order to maintain trust through appropriate monitoring and assessment protocols.

This collaboration garnered national attention. The National Association of Counties, a professional organization of Washington DC Congressional staffers, toured Yavapai County where range monitoring, recreational off-highway vehicles (OHV) environmental damage, and other rural issues were highlighted. The US Forest Service Chief, US Congressmen Paul Gosar and Eli Crane, amongst other state and local dignitaries gathered to address monitoring, MOU, OHV, and other rangeland issues. The MOU was cited as a framework to implement throughout the West on USFS public grazing lands. Rangeland monitoring and interest has significantly increased across the PNF. The Arizona Association of Photo courtesy of Andy Groseta.



Andrew Brischke attends meeting with Congressman Paul Gosar, Congressman Eli Crane, and US Forest Service Chief Randy Moore to discuss grazing and Off Highway Vehicles in Prescott and Coconino.

Photo courtesy of Andy Groseta.



Range tour on the Verde Allotment (Groseta W Dart Ranch).

Conservation Districts (AACD) has also been compiling rangeland resource notebooks for each grazing allotment and producer including Terrestrial Ecological Units, monitoring data, correspondence, annual operating instructions (AOIs), etc. as was recommended from the two previous workshops.

#### Rangeland Staff:

Caleb Miller, Research Specialist - Rangeland Management, calebnilesmiller@arizona.edu

- **63** sites on **14** PNF grazing allotments were sampled.
- Ranchers participated in **71%** of the trend monitoring sites.

## Looking Ahead...

## More Good Things to Come in 2024!

## **New Leadership**



UA Yavapai County Cooperative Extension welcomes Katie Hazlewood, Assistant Livestock Agent, as our new resource for Yavapai livestock owners and producers. Using science-based knowledge, Katie will aid producers with general inquiries about their livestock and operations, as well as help find solutions for more in-depth issues.



Natalie Olson, Yavapai's County's 4-H Outreach Specialist will be our 4-H Program Lead. Natalie facilitates 4-H outreach programming, curriculum development and organizes community events.

#### **Future Positions**

Assistant/Associate Agriculture & Natural Resources
Agent-Range Management

The Agent will focus on creating and supervising community outreach programs, providing leadership in the development and implementation of a science-based educational programing in rangeland management. This position will be based in our Camp Verde office.

## Assistant/Associate Area Agent-Small Acreage and Food Production

The Agent will focus on crops and small farm production. They will collaborate with growers, educational institutions, and community organizations, introduce new technologies and appropriate varieties for crop production, and help provide fresh local produce and value-added products to direct markets, CSAs, restaurants, and other outlets. This position will be based in Camp Verde, AZ.

## **Emerging Opportunities**

- Grafting/Cloning Propagation Workshop
- Monthly Newsletter
   Yavapai Extension Connection
- Small Acreage Workshop
- Establish Yavapai County AZMET meteorological stations
- Financial Literacy Workshops
- ◆ Farm to Early Childhood Education
- More capital improvements to the 4-H James Camp from generous Yavapai County contributors

## Thank you for your continued support!

