

# Cooperative Extension

Yavapai County

## Yavapai County Report 2022



THE UNIVERSITY  
OF ARIZONA



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2022 Pinwheel Party Event—a family friendly event to raise awareness of child abuse prevention.





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## From the County Director

Greetings!

I must begin this annual report by expressing my profound gratitude for the opportunity to return to Yavapai County—a place that I have long considered my home—in order to serve its stakeholders. Before leaving the area to find a career as a grower and horticulturist, I spent my formative years in Yavapai County attending Prescott High and Yavapai College and exploring the public lands that we all treasure. Years working as an agricultural stakeholder gave me the opportunity to work closely with Extension and realize the benefits that it has to communities. What I believe to be special about Extension is that at its core, it is about service to the community you live in, regardless of financial gain or self-promotion. This is what drives the work of the dedicated individuals that you will read about in the following pages, and the administrative staff working behind the scenes to ensure that “the trains run on time”.

Though I am new to the position, the objective, science-based information that Cooperative Extension delivers to the public is not. Founded by the Smith-Lever Act in 1914, Extension has been serving the stakeholders of Yavapai County for decades, and this year was no different. With programmatic areas that include 4-H Youth Development, Agriculture and Natural Resources, Family, Consumer, and Health Sciences, Cooperative Extension was able to serve almost 17,000 Yavapai County residents with direct education. This feat would not be possible if not for the thousands of hours of work by community volunteers; a contribution valued at over a half a million dollars.

In order to focus our efforts, Extension requires input from the community. Much gratitude must be expressed to our Advisory Board, which provides us with the pertinent, informed feedback necessary to support the needs of local residents. In a further step to best understand the priorities of Yavapai County and the State of Arizona, this year The University of Arizona Cooperative Extension also conducted a Statewide Needs Assessment. The survey reached over 320 respondents in Yavapai County and will allow us to tailor our future programming to address crucial local issues. The abbreviated results of that survey are included in the following report, with the complete findings available on our website.

Cooperative Extension greatly appreciates the 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  
Associate Agent, Agriculture and Natural Resources





Because of Yavapai County Cooperative Extension, in 2022...

- **16,946 Yavapai County residents were served** with direct education.
- **17,150 hours of service valued at \$513,643** (per Independent Sector, 2022 value of volunteer of \$29.95/hour) was contributed by Yavapai County Cooperative Extension volunteers serving as Master Gardeners, 4-H Leaders, Food Safety Industry Council, and Extension Advisory Board members.
- **141 active Yavapai County Master Gardener volunteers contributed 12,254 hours of service** to their communities, reaching **4,718** stakeholders with science-based education. In doing so, they promoted safe pest management solutions, water conservation, use of appropriate landscape plants, small-scale food production through backyard/community gardening, and other science-based horticultural practices.
- **142 youth were enrolled in Yavapai County 4-H Club Programs.** These youth were supported by **48** volunteer leaders and enrolled in projects which included horse, sheep, swine, goat, steer, rabbit, poultry, photography, leathercraft, leadership, dog, robotics, shooting sports, and Cloverbuds (ages 4 to 7).
- **93 school outreach visits were made across Yavapai County to deliver STEM** (science, technology, engineering and mathematics) **education.** Activities reached **2,288** students, with lessons including hydrology, agriculture, magnetic fields, and astronomy.
- **102 food establishment managers completed the 6-hour virtual Professional Food Manager Class** In doing so they increased their knowledge of food safety principles and how to make informed decisions to reduce risk factors and the incidence of foodborne illness in Yavapai County.
- **The 13-member Food Safety Industry Council (FSIC) identified and addressed food safety issues** in Yavapai County. The FSIC is the result of a partnership between Cooperative Extension and Yavapai County Community Health Services and provides guidance and feedback to the Yavapai County Board of Supervisors.
- A eighth year of the **Supplemental Nutrition Education Program (SNAP-Ed)** grant through the Arizona Department of Health Services was completed. Cooperative Extension reached **757 contacts in Yavapai County** with nutrition education programming, focusing on low-income families with young children and older adults.
- **The Family, Consumer, and Health Sciences (FCHS) program continues to partner with Yavapai County Community Health Services** on numerous food safety and nutrition education programs including Nature Niño's, Supplemental Nutrition Assistant Program Education (SNAP-Ed), and the Food Safety Industry Council.
- **36 early care and education sites** received training from a **Child Care Health Consultant** about health and safety practices in the childcare sites including topics such as disease transmission, oral health, and safe sleep. This work is funded by the First Things First Yavapai Region.
- A team of Yavapai County Master Gardener volunteers continued to create and maintain the **Yavapai County Native and Naturalized Plant Database**, an online resource ([cals.arizona.edu/yavapaiplants/](https://cals.arizona.edu/yavapaiplants/)) which contains descriptions and multiple photos of **1,719** native and naturalized plant species. This site is used by government agencies, schools, universities, non-profits, and other plant enthusiasts and had **102,859 pageviews** in 2022 alone.
- **The Statewide Commercial Viticulture program was created and a needs assessment was conducted which reached 56 industry members.** This data will be used to deliver programming which supports the Arizona Wine Industry (valued at \$59.8 million in total direct output), with Yavapai County holding 29% of bonded wineries in the state and 62% of the state's winery employment.



2022  
Statewide  
Needs  
Assessment  
Survey

Envisioning the Future: Yavapai  
County

Arizona Cooperative Extension conducted a statewide needs assessment survey in Fall 2022 to better understand community needs and priorities. Cooperative Extension users, topical experts, and members of the general public from each county were invited to participate via online or paper survey. Participants were shown 99 items across topics relevant to Cooperative Extension and asked to rank how important it is to prioritize each item in their community on a 5-point scale.

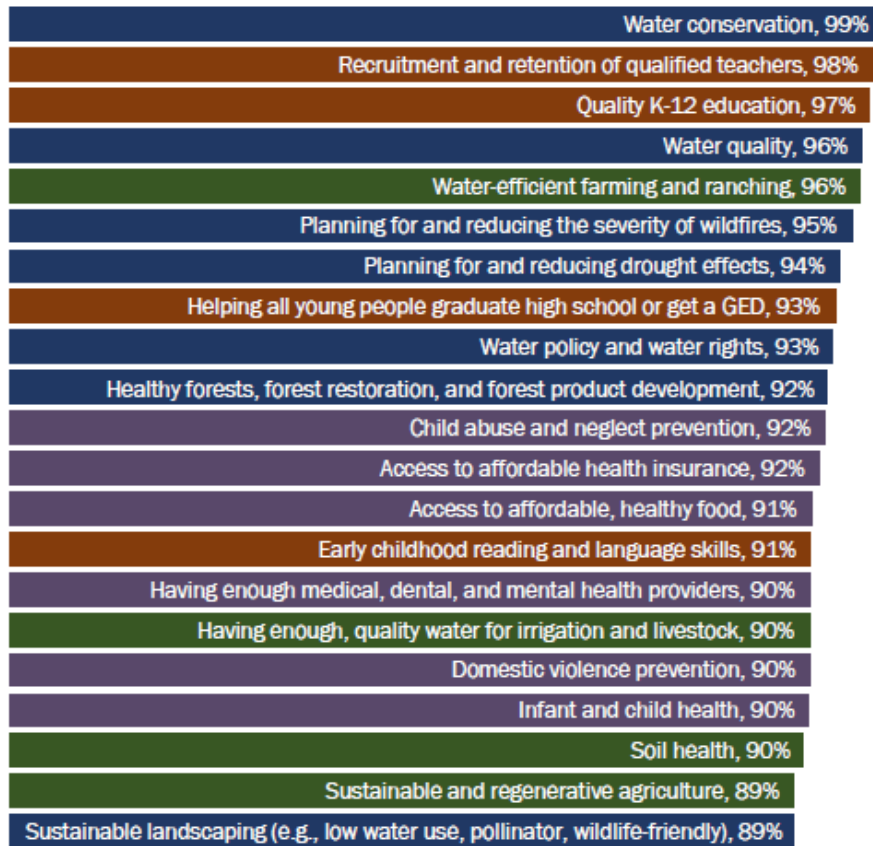
Yavapai County had 320 survey responses.



- Health and community wellbeing*
- Education and youth development*
- Agriculture*
- Natural resources and the environment*
- Community and economic development*

Top Priorities  
Identified by Yavapai County Respondents

Percent of respondents who selected "extremely" or "very" important



Cooperative Extension

Created by: Community Research, Evaluation & Development Team, January 2023

For a detailed report of the Statewide Needs Assessment for each county, please use the following link:

<https://extension.arizona.edu/statewide-needs-assessment>

## 4-H Youth Development

In 2022, Yavapai 4-H Youth Development focused on:

- Growing the Yavapai County 4-H program.
- Launching a multiyear needs assessment.
- Developing and listening to a 4-H Advisory team.
- Increasing efficiency with enrollment volunteer certification.
- Delivering STEM education outreach opportunities.
- Collaborating with University of Arizona state 4-H faculty statewide.

### Yavapai County Citizens Served in 2022

Program Area	Educational Outreach	Contacts	Totals
4-H Youth Development & STEM	4090	3622	7712

### Youth-Adult Partnerships – The Heart of 4-H

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 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.



### Community Outreach

In 2022...

- 4-H gained **9 newly certified volunteers** and **5 more began the certification process**.
- **2 new clubs** are currently pending chartering
- **53 member Record Books** were received, reviewed and judged that included **107 project records**.
- **4-H Outreach Specialist, Natalie Olson** was hired, increasing our visibility in the County by attending community events such as the Yavapai Cattle Growers Annual Calf Sale, the Fort Verde Rodeo, and the first annual Open house, which engaged with over 1285 visitors over the course of 3 days.



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### 4-H Youth Development - Clubs/Activities/Opportunities/Collaborations

In 2022 Yavapai County 4-H Clubs had the following opportunities:

#### County

- **Yavapai County 4-H Officers Training Workshop**
- **Yavapai County Healthy Living Series:** Stir-Fry Cooking from around the world, Gut-Brain Health Connection, Nature immersion for Stress Management, Fermentation – a Prebiotic and Probiotic exploration, Veggies – It's what's for breakfast, Hiking Spree Family Challenge, Ultimate Food Fight: Organics, and the Teen Wellness Conference.
- **Community Service Opportunities:** Heritage Park Zoological Sanctuary offered Yavapai County 4-H youth the opportunity to share their projects at the Park.
- **MoYava Camp at the James 4-H Camp on Mingus Mountain**
- **4-H Stock Show and Expo (cont. on page 7)**



4-H member with the turkey he raised as part of his 4-H project experience.



## 4-H Youth Development



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### State

- **Arizona 4-H Military Teen Adventure Camp**
- **Journey: Opportunities for Leaders of Tomorrow (JOLT) Camp**
- **Next Level Hog Camp**
- **Navajo County Small Stock Show (poultry, rabbit, cavy)**
- **Arizona 4-H Summit**, an experience for our teens to build problem-solving skills, practice putting innovative ideas into action, and an opportunity to explore future careers on the University of Arizona campus.
- **Kids of Arizona Leadership Experience (KALE)**, a Healthy Living Conference for teens, held at the Tucson Village Farm. This included hands-on farm-to-table education, community building, and leadership opportunities.
- **Cloverball**, a celebration recognizing Arizona outstanding 4-H youth, volunteers, staff, and alumni.
- **Arizona National Livestock Judging Clinic**
- **4-H Engaged Citizens Event**
- **Governor's Youth Commission:** Work with peers across Arizona to identify and address the greatest challenges facing Arizona's youth through innovative community impact projects, establishing partnerships with young leaders across the state, and advising the Governor.
- **Camp G.R.I.T.** (Growing, Reaching, Impacting, Tomorrow)
- **State Shooting Sports Events**

### National

- **National Youth Summit Series**
- **Citizenship Washington Focus:** Through Citizenship Washington Focus (CWF), teens experience Washington D.C. like never before. Using the nation's capital as their classroom, CWF connects young leaders from across the country to gain the skills and experiences to become effective change agents.



Yavapai County 4-H Program Coordinator, Sr., Stacy DeVeau, conducted **93 STEM outreach programs** to **2,288 participants**, in both formal and informal education settings. Lessons included Arizona agriculture and engineering design process, astronomy, and WOW (Wild over Water), which consisted of lessons aimed at improving students' understanding of 1) Water cycles, including groundwater 2) watersheds and watershed protection, 3) usage and conservation, and 4) water-related careers.

Stacy also played a key role in leading and chaperoning, the Arizona 4-H led **4-H In Space: Mission Command Team** project. **12 youth** from across Arizona were selected to

participate in the 4-state collaboration with the land grant universities of Florida, Illinois, and Indiana. With support from Higher Orbits and the International Space Station (ISS)-National Laboratory, Arizona 4-Hers were engaged in space science activities in the weeks prior to their trip to Kennedy Space Center, where they participated in the 3-day Higher Orbits "Go for Launch" camp. Youth worked in multi-state teams to design and propose experiments to be launched to and conducted aboard the ISS. While at camp, participants were mentored by astronaut Jim Riley. It was an experience that was truly out of this world.

### Additional STEM Programs

- **Robotics Train the Trainer 101 & 102 Virtual Workshops**
- **4-H Ag Innovators** – "Curbing Our Carbon Appetite Challenge"
- **Underwater Robotics** – local – state - national
- **Greenhouse Engineering Design & Sustainable Energy Camp**
- **Greenhouse Sustainable Energy Engineering Design (SEED) Hybrid Camp**
- **Augmented Reality (AR)/Virtual Reality (VR) Floating Farm Camp**
- **STEM Ambassadors** – a leadership opportunity to learn and then share STEM skills.
- **Tech Changemakers** – a leadership opportunity for teens to learn and then share digital skills with adults and other youth in their Yavapai County community.



The Rocket Garden at Kennedy Space Center: Elizabeth Pardhe, Deb Martinez, Yuridia Sanchez, JL Rademacher, Ivan Becerril, Malachi Maxton, Jonas Johnson, Zach Duenas, Isaiah Fleming, Cove Searle, Grant Cumming, Emilio Martinez, and Stacy DeVeau.

## 4-H Youth Development



### Award/Scholarship Opportunities:

- 4-H Youth in Action Awards
- Nominations for the 4-H Hall of Fame, Volunteer Excellence, and Staff Excellence Awards
- Verde Valley Trust Fund Scholarship
- Western Heritage Keeper Scholarships
- Dorrance Scholarships
- Arizona 4-H Youth Foundation Scholarship
- Tractor Supply Paper Clover Scholarship



Taryn Brasher, Club President (Leadership Skills), Lonesome Valley Wranglers 4-H



Project Leader Rachel Hays working with Cloverbud members.

**Cloverbud (5-8 year old 4-H youth) activities featured in our Yavapai County 4-H Newsletter - Activities provided by 4-H across America:** Aerospace Pre-flight, Counting Coins, Birds of a Feather, Billions of Insects, The Magic of Color, Kitchen Safety, Growing with Groundwater, Theatre Arts Adventures, The Road To Good Cooking, and Nature Rubbings.



Project leader, Dave Long teaching woodworking skills to a 4-H member.





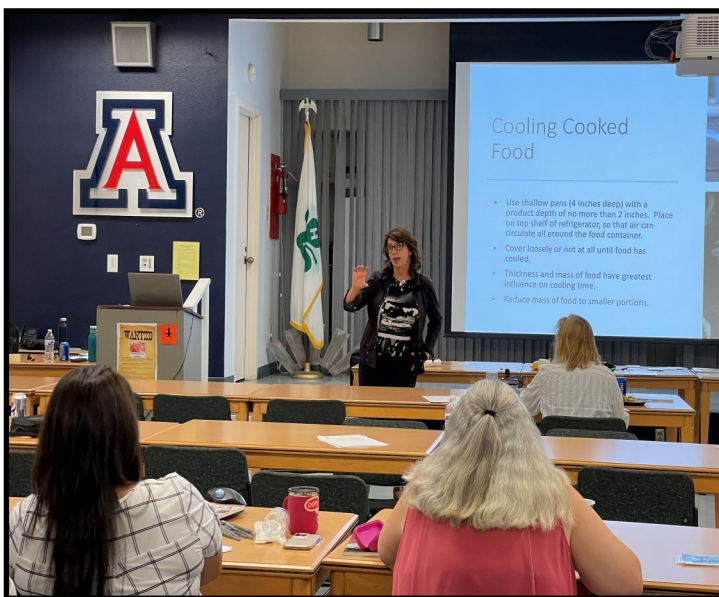
### Food Safety/Local Foods

The aim of Family, Consumer, & Health Sciences (FCHS) with Cooperative Extension is to develop and deliver community-specific programs that help build strong families, strong minds and strong bodies. These programs are conducted by University of Arizona Agriculture, Life & Veterinary Sciences, & Cooperative Extension (ALVSCE) county-based agents and campus-based extension specialists from the Norton School of Human Ecology and the School of Nutrition and Wellness. In Yavapai County, the FCHS program includes food safety, culinary skills, local food systems, nutrition education, physical activity and early childhood education, health and safety.

### Yavapai Food Protection Manager Training and Certification Exam

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 food protection managers. Yavapai County Cooperative Extension offers the 6-hour food managers course and proctors the 2-hour certification exam in partnership with the Yavapai County Community Health Services Environmental Health. The course is offered twice a month, virtually and in-person in Prescott and Cottonwood locations.

In 2022, 102 Yavapai County food establishment managers completed the 6-hour course designed to help restaurant managers and employees increase their knowledge of food safety principles and make informed decisions to reduce risk factors and foodborne illness incidences. The testing provider for the nationally recognized certification exam unexpectedly switched mid-year. As a result, data is only available for the new test provider, State Food Safety, beginning August 2022. Based on the available data, 95% of food establishment managers passed the exam.



Aimee Novak, Program Coordinator, teaching Food Protection Manager Certification Program.

### Yavapai County Food Safety Industry Council (FSIC)

The FSIC is made up of thirteen appointed members, ten of whom are industry representatives (two from each of the Board of Supervisors Districts) and three community representatives at large, as well as ex-officio members from Yavapai County Community Health Services and the University of Arizona Cooperative Extension.

In 2022, the FSIC:

- Met quarterly to conduct business via video conference to identify and address food safety issues in Yavapai County.
- Approved two new issues of the *Food Safety Scoop* educational newsletter written by Yavapai County Cooperative Extension and mailed to all licensed food establishments in Yavapai County.
- Council members, and UArizona Cooperative Extension Yavapai County created a Golden Plate Media Kit. The kit provides the tools Golden Plate Award winners needed to promote the establishment's commitment to food safety.
- In January 2022, the FSIC launched a handwashing campaign to increase awareness of the benefits of good hand hygiene. The campaign included handwashing materials available in English and Spanish and linked to Yavapai County Cooperative Extension's video *Kitchen Tips and Cooking Demonstration Classes: Handwashing* through the Yavapai County Community Health Services Environmental Health website and Facebook page. As a result of the campaign, the website link recorded 239 new views of the handwashing video in 2022 and the Facebook post yielded a total of 726 views.

### Community Food Preparation/Culinary Classes

FCHS faculty and staff created a culinary video series to meet requests for more educational content from community members. Videos were designed to reinforce kitchen skills and food safety practices, including virtual cooking lessons to facilitate new ideas for meals, learn proper knife skills, learn new preparation and storage methods to maximize the shelf-life and safety of fresh food items. Videos were uploaded to the Yavapai Cooperative Extension YouTube site and main Cooperative Extension site. There were 1,405 new views of the series in 2022.

### Farmers Market and Local Food

FCHS faculty and staff provided technical assistance to local growers and the Prescott Farmers Market about safe food handling practices, standards of practice for producing and selling value-added products and participated in their food hub steering committee to establish a shared commercial kitchen in Prescott.



Vegetables being processed

### Food Preservation

In March 2022, FCHS Agent Hope Wilson taught 2-day virtual Introduction to Home Canning class covering the basic of safe home canning. Each class included 90 minutes of instruction followed by time for participant questions. Over 40 participants attended both classes and completed a survey. All participants that responded to the survey stated that they felt the workshop adequately prepared them to safely preserve food at home and 90% of respondents stated that their general knowledge increased about safely canning foods at home.

Hope Wilson was also featured in *Arizona Living* Episode 156: Food Canning where host Jane Clauss interviewed Hope Wilson about canning at home. The episode is part of YurView / YouTube @YurViewShows: Local stories from Cox Communications.

<https://www.youtube.com/watch?v=co2XxeqscVQ>

In October 2022, Hope led a canning presentation and question and answer forum for approximately 30 participants in Prescott Valley in partnership with a local hardware and appliance store.

### Supplemental Nutrition Assistance Program Education (SNAP-ED) / AZ Health Zone

The goal of SNAP-ED is to improve the likelihood that persons eligible for SNAP will make healthy choices within a limited budget and choose active lifestyles. Yavapai County Cooperative Extension SNAP-ED focuses on providing nutrition education to young children, their parents, and older adults through classroom and community education, food demonstrations, gardens, farmers' markets, and seed-to-table initiatives. In 2022, the University of Arizona Cooperative Extension SNAP-Ed team reached a total of 724 contacts.

### Nutrition Education for Children and Caregivers During Story Time

In October and November 2022, SNAP-Ed staff, Geovani Donaldson, partnered with the children's librarian at

Cottonwood Public Library to offer a nine-week series of early childhood nutrition programming during story time. An average of 15–20 participants, children and their caregivers, attended each of these interactive story time nutrition lessons. Caregivers that attended all the story time sessions held at the Cottonwood Public Library with their children completed a parent feedback survey following the final session. Eighty percent of respondents reported that participation in story time nutrition and physical activity sessions improved their child's willingness to taste fruits and vegetables. One hundred percent of survey respondents reported that participation increased their child's physical activity.



Color Me Healthy Program in the Cottonwood Library

### Nutrition Education and Physical Activity in Yavapai County Head Start Centers

In addition to nutrition education classes and activities, SNAP-ED focuses on supporting policy, systems, and environments that encourage healthy choices. In 2022, the SNAP-Ed faculty and staff provided training and technical assistance to all 10 Head Start centers in Yavapai County.

In 2022 Yavapai County Head Start centers submitted monthly nutrition education activity reports describing activities they had conducted with children enrolled at their sites. In these reports, Head Start center staff reported that they conducted 88 different activities with the children in their centers including taste tests, songs, fruit/vegetable picture cards and circle time activities; spent 120.3 hours conducting nutrition education, accounting for 732 nutrition education contacts with the children in their center and 406 contacts with parents.





### Nutrition Education and Physical Activity in Yavapai County Head Start Centers (Cont.)

Our collaborative work with the Northern Arizona Council of Governments (NACOG) Head Starts, Coconino County, UA Apache County and UA Navajo County received a national award for Community Partnership at the National Extension Association of Family and Consumer Sciences Annual Session in September 2022. This award recognizes outstanding community partnership efforts in meeting the needs of families through collaboration with groups, agencies and consumers.

### Community Presentations and Activities

- Hosted a table at the Prevent Childhood Abuse Arizona and Yavapai Communities for Kids Pinwheel parties in April 2022. Facilitated an activity for children to make their own healthy snack recipe.
- Facilitated a gardening activity in partnership with the Child Care Health Consultant at a preschool in Cottonwood. Demonstrated to teacher how to connect nutrition education, gardening and shared book reading in the classroom.

### University of Arizona Cooperative Extension-National Diabetes Prevention Program

Prevent T2, part of the National Diabetes Prevention Program (NDPP) supported by Centers for Disease Control and Prevention (CDC) is a 12-month, 26-lesson lifestyle change program that focuses on healthy eating, increasing physical activity, and reducing stress. The program is designed for adults with prediabetes or that have multiple risk factors for prediabetes with the goal of preventing participants from developing type 2 diabetes through healthy lifestyle changes such as improved diet quality, increased physical activity and weight loss. In 2022, the third Yavapai County Cooperative Extension cohort completed the year-long program. This group had an 82% retention rate; 9 of the 11 participants completed all 12 months of the DPP program. Participants reported an average weight loss of 8 pounds each and completing 260 weekly minutes of physical activity per participant. By the end of the program, this group lost a total of 70 pounds.

**I AM AN AGENT OF CHANGE.**

**I know that 1 in 9 Arizonans has diabetes, so my mission is to live a healthy lifestyle (and get screened for prediabetes, just in case).**

### Early Childhood Health and Education Child Care Health Consultant

Yavapai County Cooperative Extension is agency responsible for the First Things First Yavapai Region Child Care Health Consultation Strategy. Child Care Health Consultants (CCHC) provide consultation, technical assistance, and training to childcare centers, home-based providers and preschools to promote safe and healthy learning environments for young children and staff. In 2022, our CCHC served the 36 Quality First childcare sites in Yavapai County.

### Nature Niños

Nature Niños is a coalition of municipal, county, and nonprofit entities launching a child, family, and community outdoor health initiative. FCHS is part of the core development team of this initiative that also includes City of Prescott Recreation Services Department & Community Nature Center and Yavapai County Community Health Services. These partners developed an assessment tool to measure levels of trail accessibility for families with young children. Each month a different trail is the site of advertised community event that features guided outdoor experiences for families with children ages 0-8. These events encourage physical activity, social and emotional well-being, family outdoor recreation and an introduction of the area's parks and trails to new audiences.

In 2022, Nature Niños hosted 11 monthly events with a total attendance of 1043 children and caregivers. Each event has an average attendance of 95 children and caregivers. Ninety-nine caregivers completed exit surveys about their experience at Nature Niños. One hundred percent survey respondents rated the event as good (15%) to excellent (85%). Nearly one third of caregivers said that attending a Nature Niños event increased their confidence level for spending time outside with their children. In September 2022, Nature Niños received the national Family, Health and Wellness Award for innovative programming that promotes and improves the health and wellness of families from the National Extension Association for Family and Consumer Sciences (NEAFCS).



Nature Niños Nature Scavenger Hunt

## Master Gardeners/Home Horticulture

### Yavapai County Master Gardener Volunteer Program

The Yavapai County Master Gardener Volunteer program teaches engaged citizens to become valuable horticultural volunteers in their communities.

# active Master Gardeners: 141

Total Volunteer hours: 12,254

Total Continuing Education hours: 1743

#### Help Desks

Free horticulture advice was provided by 22 Master Gardener volunteers in the Camp Verde and Prescott Extension offices.

Clients served via:

- 387 phone calls,
- 189 in-person office visits,
- 566 emails
- 19 site visits to client locations

#### Website and Social Media

- Master Gardener Facebook: 1904 followers (26% increase over 2021); avg 25 posts per month
- Yavapai Gardening Website: 3382 page views
- Public YouTube Channel: 9 presentations posted, 414 views
- Yavapai Native & Naturalized Plant Database, created & maintained by Yavapai County Master Gardeners: 139 plants added, bringing the total to 1631 plants; 102,859 website page views  
<https://cals.arizona.edu/yavapaiplants/index.php>
- Backyard Gardener articles written by Emeritus ANR Agent Jeff Schalau over past 24 years continue to be viewed nationally; 253,241 pageviews in 2022.

#### Public Landscape/Garden Support

Master Gardeners supported landscapes/gardens at many locations in the county, some being:

- Greenhouses at the Prescott VA and Yavapai College
- Museum grounds (Sharlot Hall in Prescott, Heritage Museum in Sedona)
- Red Rock Ranger Station
- Heritage Park Zoo Garden
- Montezuma Well
- Community Nature Center, Prescott
- Highlands Center for Natural History
- Monarch Butterfly Garden in VOC
- Grow Food in Your Backyard Mentor program
- Schools (Abia Judd Elementary School and Primavera School in Prescott)
- Community gardens in Prescott Valley and Cottonwood
- City of Sedona Landscape Project



#### Speakers Bureau

Master Gardeners gave talks to several clubs, libraries, general public;

- # of presentations: 72
- # of attendees: 1284

#### Plant Sales



Master Gardeners held 2 sales in 2022:

- April tomato plant sale for Master Gardeners only (due to COVID concerns)
- September plant & book sale for the public

Both sales held at Prescott Rodeo grounds. Proceeds are used to support educational outreach.

#### Public Outreach - Information Tables

Staffed information tables at Prescott, Sedona & Camp Verde Farmers' Mkts, 3 wildfire expos, Yavapai Fair, other events in the county.

- 2271 horticultural conversations

#### Welcome Agriculture and Natural Resources Agent

**Matt Halldorson** replaced Jeff Schalau as Agriculture and Natural Resources Agent in late July. No Master Gardener Volunteer training was held in 2022 due to the transition. In 2023 Matt will conduct an in-person Master Gardener Volunteer training class in Prescott. He is adding an evening Zoom Home Horticulture class for those who would like to learn science-based gardening techniques but are not able to complete the volunteer requirements of a Master Gardener.



Matt on a site-visit looking for bark beetles



## Program Goal

In July 2022, new County Director and Associate Agriculture Agent, Matt Halldorson launched the Arizona Commercial Viticulture program to support the Arizona wine grape industry (valued at \$59.8 million state-wide) by providing commercial growers with science-based research and education through extension programming.

This directly impacts Yavapai County, as it is home to 29% of Arizona bonded wineries and 62% of the state’s winery employment. In 2017, Arizona’s newest American Viticultural Area, The Verde Valley AVA, was established within Yavapai County boundaries, which will only increase the notoriety of the local wine industry.

## Arizona Statewide Needs Assessment Preliminary Results

An Arizona State Viticulture Needs Assessment was launched in 2022, and preliminary results showed that Extension Programming focusing on irrigation, pest and disease management, and soil fertility was “very important” to over 50% of stakeholders, while cover crops, safe pesticide use

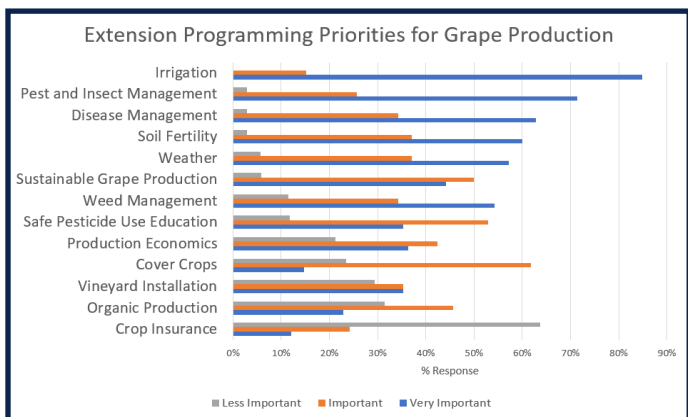
crop, which varies depending on time of year and growth stage of the vine.

## Integrated Pest Management is Key

Pests and disease management ranked highly in terms of priorities by growers, though complete eradication is rarely the goal. Results from the Needs Assessment, showed that few growers stated that they use the principles of integrated pest management (IPM), which focuses on sustainable agriculture, understanding the whole-farm system, monitoring, and using the least invasive tactics first before chemical treatment. Because of this, IPM strategies generally are found to be better for the environment as well as being more economical.



Yavapai College Vineyard in Clarkdale, Arizona. Photo by Matt Halldorson



Results from Statewide Needs Assessment asking growers “How important is University/Extension programming on the following grape production topics?”

education, and sustainable production were considered “important” by more than 50% of respondents. This data will be used to prioritize Extension resources into providing the greatest impact upon the needs of the industry.

## Wine Grapes are a Water Efficient Crop for Yavapai County

Wine grapes are an important product to the Yavapai County agricultural industry because they are extremely water efficient, using a fraction of the water (about 1.5 acre/feet) per acre per year) of many traditional crops such as alfalfa, Bermuda grass, or pecans. To address irrigation programming, and educate growers how to fully take advantage of wine grape’s low-water use properties, efforts will be focused on educating growers how much water is actually needed by the

## Soil Fertility Education for Growers and the Land

Understanding soil fertility is key to maximizing return on investment as well as good stewardship of the land. Vineyards are costly to install and growers need to understand how to prepare the soil before planting and continue to manage it to ensure that they are able to achieve crop levels which allow them to be profitable. Further, precise nutrient application is necessary in order to avoid damaging our riparian areas and aquifers due to over-fertilization and run-off.

The above topics are just a few of the topics that Yavapai County grape growers stated as being of high importance. The complete results of needs assessment will be published in 2023 and agricultural programming will be delivered to address their priorities.



## University of Arizona Cooperative Extension Faculty and Staff

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<b>Chad Heatherwick</b>	Food Safety/Nutrition
<b>Shanti Rade</b>	Small Agriculture Producer
<b>Gail Steiger</b>	Rancher

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Thank you to our community collaborators and partners.

