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Cooperative Extension, the outreach arm of the University of Arizona, brings the University to the people.

The faculty and staff in the Pinal County Extension office are part of a non-formal education network bringing research-based information into communities to help people improve their lives.

Cooperative Extension is committed to delivering high-quality, relevant educational programs and information to Pinal County citizens and communities.

As we close the book on Fiscal Year 2026, we want to take a moment to reflect on another impactful year of serving the residents of Pinal County. Throughout the year, our Extension team worked together to support youth development, strengthen families, assist agricultural producers, promote healthy communities, and provide research-based education that makes a difference every day.

None of this would be possible without the dedication and teamwork of our staff and volunteers. Whether they were planning workshops, balancing budgets, coordinating events, supporting our programs, assisting clients, managing grants and purchases, or working behind the scenes to keep everything running smoothly, their efforts helped our office continue its mission of serving our communities.

As we welcome Fiscal Year 2027, we look forward to new opportunities to learn, grow, and expand our impact across Pinal County. With new programs, partnerships, and initiatives on the horizon, we are excited to continue working together to meet the needs of those we serve.

Take a peek inside this newsletter to see what's happening over the next three months! Inside, you'll find an agriculture-focused workshop, updates on youth programming and exciting opportunities ahead, nutrition classes, and helpful summer tips on a variety of program topics. If something catches your eye or you'd like more information, don't hesitate to contact us!

Welcome, Fiscal Year 2027! We look forward to another year of serving Pinal County together.

  
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# FIELD CROPS SYSTEMS



## AGRONOMY PROGRAM

*Submitted by Avik Mukherjee, Assistant Agent, Agriculture*

Educational Program (Tent Talk) & Stakeholders' Need-Focused Field Trial

### Upcoming Events

|  |  |
|--|--|
| <b>Cotton Tent Talk,<br/>July 29, Coolidge</b>                         |  |
| <b>Smart IPM Workshop for Arizona Growers,<br/>August 11, Maricopa</b> | <b>Smart Crop Management Practices for<br/>Arizona Growers, Maricopa (TBD)</b> |

### Research Updates

|   |  |   |
|---|--|---|
| <b>Herbicide Efficacy Trial in<br/>Cotton (ongoing)</b> | 15 treatments<br>(Pre- and Post-emergence)   | Maricopa Agricultural Center,<br>Maricopa, AZ |
| <b>Silage Corn Trial (Upcoming)</b>                     | Planting dates, seed rates,<br>Beds vs Flats | Maricopa Agricultural Center,<br>Maricopa, AZ |

### Program Impact (April-June)

|                                      |   |   |
|--------------------------------------|---|---|
| <b>80+</b><br>Stakeholder Engagement | <b>1 Workshop   2 Tent Talks<br/>3 Webinars</b> | <b>4 Extension Articles<br/>Published</b> |
|--------------------------------------|---|---|



# HORTICULTURE



## GROWING A HEALTHY BACKYARD CITRUS TREE

*Submitted by Jim Jepsen, Community Outreach Professional II, Horticulture*

Rules to follow for growing a healthy backyard citrus tree in Pinal County require specific schedules for watering, fertilizing, and sun protection. Science-backed guidelines and free [gardening publications](#) from the University of Arizona, Cooperative Extension can help you maximize your backyard fruit harvest while keeping your trees alive and healthy in harsh desert conditions.

### IRRIGATION: DEEP AND INFREQUENT

Citrus trees must be watered deeply to support healthy fruiting. You should wet the soil to a depth of two to three feet.

- **Frequency:** Water every 7 to 10 days, during hot summer months. Reduce this to every 2 to 4 weeks, during the winter.
- **Soil Check:** Let the top six inches of soil dry out completely between waterings. Constant moisture causes harmful root rot.
- **Signs of Stress:** If your tree leaves curl, it needs water right away. If the leaves turn yellow, it is getting too much water.



### FERTILIZATION: THE RULE OF THREE

Citrus trees have high nitrogen needs. According to the UA Cooperative Extension [Citrus Fertilization Chart](#), you must split the annual fertilizer dose into three equal parts:

- **Application 1:** Apply in January or February.
- **Application 2:** Apply in March or April.
- **Application 3:** Apply in May or June. Oranges follow this timeline, while lemons and limes shift their third feeding to August or September.
- **Winter Warning:** Never fertilize after October. Late-season food forces new growth that will freeze in the winter cold.



### WEATHER PROTECTIONS

The intense low-desert sun and occasional winter frosts can severely damage your trees.

- **Sunburn:** Direct afternoon sun can scald tree trunks. Protect your tree by painting the trunk with white latex paint, especially formulated to be non-toxic and let your tree breathe. You can also leave lower branches unpruned to create a protective canopy skirt.
- **Frost:** Young citrus trees are highly sensitive to freezing temperatures. Cover young trees with a frost cloth when cold winter nights are forecast.

### MINIMAL PRUNING

Citrus wood is naturally very strong. It does not need heavy seasonal cutting to stay healthy.

- **What to Remove:** Trim away dead wood, crossing branches, and water sprouts.
- **The Graft Line:** Always slice off suckers growing from below the graft line. These suckers drain energy from your main tree.
- **When to Prune:** The best window for trimming is between February and April. Avoid late-fall pruning.

# FIRST SMILES ORAL HEALTH



## ANESTHESIA AND CHILDREN'S DENTISTRY

*Submitted by Greeta Mills, RDH MEd, Oral Health Professional*

One conversation I have had many times with parents of young children is about the different anesthesia techniques available for use during a dental visit. One thing that is not unique to pediatric dentistry is the desire for the patient to be comfortable during the visit. We all want that! Both patient and dentist or dental hygienist.

There are several methods that are used, depending on the age and needs of the child, and how complex the procedure is going to be. Pediatric specialists are trained in distraction, guided imagery, and other non-medicated techniques to manage anxiety too.

Local anesthesia is given by injections or on a swab, and makes the tooth or gums numb. How much to use is calculated by the child's weight, their age, medical history, and what procedure is planned.

Nitrous Oxide, commonly called "laughing gas," may be recommended for children three and older to help with anxiety or dental fears. It does not take the place of using local anesthesia and may be used in combination to help the child relax and cooperate for procedures to be done. It has minimal adverse effects, is safe and reversible, and again your child's dentist may suggest it if it is a good fit for your child's age, medical history and the type of procedure that is planned.

Sedation is often a recommended option depending on the anxiety level of the child, the age and ability to cooperate, and takes into consideration any special needs the child may have. Within the sedation option, there are different methods and medications used depending on how long the procedure is going to take, and how deeply sedated the child needs to be.



Sometimes it is recommended that general anesthesia be utilized when a lot of treatment is necessary, the child has special developmental disabilities, or the child cannot cooperate to safely complete the work needed. It can allow for fewer appointments, reduced anxiety, and a pain-free experience. It may be the best option for families with children with special needs that otherwise might avoid necessary care.

By asking questions of your child's dentist so that you understand the pros and cons of each method, you and the dentist can discuss the options and risks and determine which method, or methods will be best for your child.

All anesthesia carries certain risks. So does avoiding treatment. Maintaining a high standard of safety protocols and carefully matching anesthesia types with the patient's needs can help improve the dental experience for children and their families.

# 4-H YOUTH DEVELOPMENT



## **SUMMER 2026, 4-H MEMBERS SHOWED UP & SHOWED OUT**

*Submitted by Esther Turner, Associate Agent, 4-H Youth Development*

What a season it has been! From the high energy of the 4-H Summit to the early mornings and big discoveries at AgDiscovery Camp, our young people brought everything they had this summer, and it showed. Summer Day Camps kept the momentum going with hands-on activities that had participants picking up new skills, while having too much fun to even notice. That's what good programming looks like, and that is exactly what we delivered.

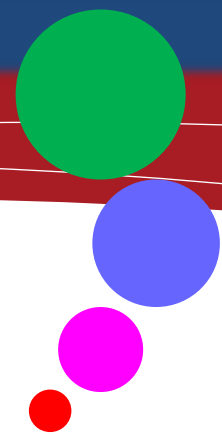
The 4-H Summit deserves its own spotlight. This was not just another youth event. It was a full college experience, with participants living on campus at the University of Arizona, building friendships, gaining independence, and getting a real feel for what life after high school can look like. The days were packed with things you simply cannot find in a classroom. Youth went inside the Richard F. Caris Mirror Lab, one of the most unique facilities in the world, where the massive mirrors powering some of the planet's most advanced telescopes are designed and built. They explored the Center for Creative Photography and the Poetry Center, two spaces that opened up conversations about art, storytelling, and how we make sense of the world around us. And when night fell, they headed to the Observatory for a laser light show to music that nobody is going to forget anytime soon.

The end of summit banquet brought everything together in the best way possible. Families joined participants for an evening of celebration, and scholarships were presented to 4-H youth who have worked hard and given back to their clubs and communities. Watching those young people be recognized, in front of the people who love them most, was one of those moments that reminds you why this work matters.

Across every program this summer, our members showed up with heart. They tried new things, supported each other, took on leadership roles, and represented 4-H with everything it stands for.

Registration for the 2026/27 4-H year opens August 1<sup>st</sup>. Do not wait too long. Spots fill up fast, and after a summer like this one, everyone is going to want in.





## SCHOOL READINESS BEGINS AT BIRTH

*Submitted by Samantha Colarusso, Community Outreach Professional III*

At birth a baby's brain is 25% of its adult size, doubling by age 1. By the time they turn 5, a baby's brain has reached 90% of its full growth! What's more, a baby is born with all the brain cells they will ever have. In those first few years, amazing neural connections are happening inside the growing brain. Those connections will be the foundation for a life of learning.

When children begin kindergarten around the age of 5, their brains have already undergone so much growth and development! To be ready for the classroom, it's important to nurture those early years. It may sound daunting, but it's as straightforward as creating a nurturing, safe environment with plenty of opportunities to try new things.

Here are a few simple things that can help a child grow into someone that loves to learn, in the classroom and beyond.

- Spend time together: Loving, consistent relationships with caregivers teach infants and children to trust that they are safe. Forming healthy attachments to family aids in self-regulation and cooperation with peers.
- Conversations: Babies love and need to be talked to. Having a back-and-forth conversation when the other person is babbling can feel funny at first, but you are building the foundation for future speech. Read to your child every day and talk about what you read. Being read to regularly builds vocabulary, comprehension, and other skills needed for literacy.
- Play: Play fosters curiosity, helps us to naturally learn to focus on tasks, helps to build fine motor skills like writing and gross motor skills like running and climbing, and boosts confidence and positive social development. Just to name a few!



Developmental milestone screeners, like the Ages & Stages Questionnaire (ASQ), are a quick and easy way for parents to track their child's development from birth to age 5.

When families complete a free ASQ through the Developmental & Sensory Screening Program, they receive helpful information about their child's milestones along with personalized activity ideas to support development.

Whether your child is 4 months or 4 years old, we are here to help you better understand their journey to kindergarten. Complete a free screening online at <https://asqonline.com/family/477598> or call (520) 374-6221 to schedule an appointment for our office in Casa Grande.



## BEAT THE ARIZONA HEAT: FUN, FOOD, AND FAMILY TIME AT HOME

*Submitted by Muriel Gutierrez, Community Outreach Assistant II*

As you and your family already know, summer in Arizona is HOT! When temperatures rise, many parents start searching for ways to keep their kids entertained and cool, without spending a fortune. With the increasing cost of activities, sometimes staying home can be the best option and it can also be a lot of fun!

Two things we often hear from kids during summer break are, “I’m bored!” and “Can I have a snack?” Fortunately, there are simple ways to tackle both boredom and constant snacking while creating meaningful family time.

Try making easy, refreshing recipes together that spark conversations about nutrition, cooking, and spending time around the table. Many summer recipes require little to no stove time and make perfect snacks for a game night, a movie afternoon, or a midday cool-down.

### Try These Cool Summer Recipes!

Let your child choose a recipe to make with you this week. These simple, fresh recipes are great opportunities to talk about nutrition, try new flavors, and build confidence in the kitchen.

- [Strawberry Pineapple Lemonade](#)
- [Pico de Gallo Fruit Salad](#)
- [Tasty Tostadas](#)

After trying a recipe together, ask your children:

- What was your favorite part?
- What would you change or add?
- Would you make it again?
- What ingredients could we substitute to save money or try something new?

Cooking together can also lead to conversations about grocery shopping and making thoughtful food choices. Have your children help write the grocery list and talk about how grocery stores are designed. Draw a map of your favorite grocery store and notice where your family spends the most time shopping.

Then, challenge your family to “outsmart the grocery store” by discussing questions like:

- Where are the most expensive products placed on the shelves?
- Where are cereals and snacks marketed toward children located?
- Why are candy and magazines often placed near the checkout register?
- Is there a difference between name-brand and store-brand products?
- What foods are usually located around the outer edges of the store, and why?

After exploring these questions, let your children create a simple meal plan and grocery list for one meal or even a few days. Take a trip to the store when you are not rushed and turn it into a fun family challenge. Have them guess the cost of each item on the list and compare their estimates as you shop.

Try to stick to your shopping list and review the receipt together afterward. Discuss how adding extra items can affect your food budget and how planning ahead can help your family save money.

Kids love being involved in real-life decisions, and these small activities can help them develop important life-skills like cooking, budgeting, critical thinking, and making healthy choices, all while creating lasting family memories.

Stay cool, have fun, and enjoy your summer adventures at home!





THE UNIVERSITY OF ARIZONA

Cooperative Extension

Pinal County

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## GIVE YOUR FAMILY A HEALTHY START WITH EFNEP!

Classes are hands-on with food  
demonstrations and  
fun activities.

Come ready to:

- Learn and enjoy new recipes
- Participate in fun activities
- Learn proper food safety

Classes are scheduled at different  
locations throughout Pinal  
County. Give us a call to schedule  
a FREE class for you and your  
family and friends.

## NUTRITION EDUCATION

BASED ON A CURRICULUM THAT HELPS FAMILIES  
CREATE POSITIVE CHANGES FOR A HEALTHIER LIFESTYLE

### FOOD

LEARN NEW, EASY AND TASTY RECIPES  
THAT YOUR FAMILY WILL ENJOY PREPARING TOGETHER  
AS WELL AS EATING TOGETHER

### ACTIVITIES

LEARN NEW ACTIVITIES THAT YOUR ENTIRE FAMILY WILL  
HAVE FUN DOING TOGETHER AND GET YOU MOVING MORE

### PARTICIPANTS

WILL RECEIVE A CERTIFICATE OF COMPLETION AT THE END  
OF THE SERIES ALONG WITH SKILL BUILDERS  
(MEASURING SPOONS, INSULATED BAG, ETC) AT EACH LESSON  
TO HELP REINFORCE THE LESSON LEARNED THAT WEEK



Scan the QR code to register  
or for more information contact:

Esmeralda Castillo

EFNEP Program Coordinator, Sr.

[ecastillo1@arizona.edu](mailto:ecastillo1@arizona.edu)

(520) 788-6217, Direct Line

(520) 836-5221, Main Office





# ANNUAL PRESSURE CANNER

**FREE**



**Call TODAY to schedule a FREE appointment!**

No need to bring your whole canner. Just drop off your lid/gauge at the Pinal County Cooperative Extension Office.

Once it's been tested, we will call you to pick it up. You will also receive a written report with the test results.



Testing of your **lid and gauge** helps ensure your equipment is working properly during food processing.

Accurate pressure and a proper seal allow the correct temperature to be reached. This testing helps ensure the food you process is safe to eat and properly preserved.

For more information, please contact us at  
Email: [mmelende@cals.arizona.edu](mailto:mmelende@cals.arizona.edu)  
Phone: (520) 836-5221

# FIND US. LIKE US. FOLLOW US.

Facebook Pages:

- [Maricopa Master Gardeners](#)
- [Pinal County 4-H](#)
- [Sensory & Developmental Screening](#)

Webpage: [CALIS, Pinal County](#)



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**4-H** provides educational opportunities for youth to become capable and contributing members of a global community. Children, ages 5-19, learn about healthy lifestyles, animals, plant sciences, and leadership.

Contact: Esther Turner at (520) 340-4815 or [eturner@cals.arizona.edu](mailto:eturner@cals.arizona.edu)

**SNAP** is a program designed to influence healthy eating and active living in a positive way that promotes health and reduces disease among all people living in Arizona.

Contact: Greta Mills at (520) 340-4973 or [gmills@arizona.edu](mailto:gmills@arizona.edu)

**Child Care Health Consultations (CCHC)** develops relationships with childcare facilities to provide training to staff that will improve their knowledge and practice in the childcare setting.

Contact: Ashley Dixon at (928) 978-2911 or [adixon@arizona.edu](mailto:adixon@arizona.edu)

**Developmental Screening Program** reaches out to families with children, ages 0-5, to screen for early developmental milestones such as gross and fine motor skills, communication, personal-social skills, and problem-solving capacities.

Contact: Sam Colarusso at (520) 340-4945 or [colarusso@cals.arizona.edu](mailto:colarusso@cals.arizona.edu)

**Expanded Food and Nutrition Education Program (EFNEP)** is a nutrition education class designed to assist limited resource families in eating smart and being active and in acquiring the knowledge, skills, and behavioral changes necessary to contribute to their personal development and the improvement of the total family diet, nutritional and physical well-being.

Contact: Esmeralda Castillo at (520) 788-6217 or [ecastill@cals.arizona.edu](mailto:ecastill@cals.arizona.edu)

**Field Crops Systems** uses research and education efforts to work to improve field crop productivity and global food and fiber supply, farm economic viability, and protecting the environment.

Contact: Avik Mukherjee at (520) 340-4385 or [avikm@arizona.edu](mailto:avikm@arizona.edu)

**First Smiles** is an oral health program that provides preventative oral health education, oral screening, referral to dentists for children birth to age five; and fluoride varnishing for children with emergent teeth up to age five.

Contact: Greta Mills at (520) 340-4973 or [gmills@arizona.edu](mailto:gmills@arizona.edu)

**Horticulture Program** develops and delivers educational information, structured programming, and technical support to the consumer and commercial horticulture sectors, as well as urban agriculture and food systems in Pinal County.

Contact: James Jepsen at (520) 340-4489 or [jjepsen@arizona.edu](mailto:jjepsen@arizona.edu)

**MAC (Maricopa Agricultural Center) Farm Ag-Ventures** educational programs include a combination of videos, educational presenters, hands-on learning experiences and tractor-trailer rides around their 2,200 acre farm for a close-up view of what makes a working farm operate.

Contact: Esther Turner at (520) 340-4815 or [eturner@cals.arizona.edu](mailto:eturner@cals.arizona.edu)

**Sensory Screening Program** provides free screenings of children, ages 0-5, for vision and hearing impairments that could affect developmental growth.

Contact: Sam Colarusso at (520) 340-4945 or [colarusso@cals.arizona.edu](mailto:colarusso@cals.arizona.edu)