Spring Noxious Weed Workshop
Kim McReynolds, Greenlee County Extension Director
The annual Spring Noxious Weed Workshop was held on March 9th at the County Annex Building in Duncan. Participants learned how to identify target weed species, the biology of how they grow and reproduce, and some Integrated Weed Management options for controlling each species. The importance of reading herbicide labels and using a surfactant were also covered. The workshop was sponsored by the Gila River Weed Working Group, a collaborative group consisting of local landowners, state and federal agencies, Greenlee County, and Greenlee County Cooperative Extension. The focus of the group is to control state and federally listed noxious weeds in the Gila River Watershed in Greenlee, Graham, and Hidalgo counties.

Extension Day at Blue
Kim McReynolds, Greenlee County Extension Director
One of the highlights each year during the Spring, is our trip to the Blue School to provide programming for the students. On May 12th faculty and staff presented a variety of educational programs, including:

- **The Incredible Journey** – Students became water molecules, and with a roll of the die, they simulated the movement of water within the water cycle. They moved through the ocean, rivers, lakes, animals, plants, clouds, glaciers, soil, and groundwater.
- **Nutrition** – Grades 2-6 learned about nutrition and made a smashed potato recipe that was enjoyed by all during the lunch break.
- **Livestock Judging** – Grades 7-12 learned how to judge cattle and practiced using videos. Two students said they were interested in joining the Greenlee 4-H livestock judging team.
- **Gardening** – Students learned about how soil temperature affects seed germination and conducted their own trials by testing soil temperature in a variety of conditions around the school yard (full sun, shade, wet soil, etc.).
- **Blender Bike** – The most popular activity of each visit to the Blue School. Students made Green Alligator Smoothies on the Blender Bike for a treat during lunch time.
• **Space Tomatoes** – Grades 2-8 planted seeds of tomatoes from the International Space Station and grown here on Earth. They are watching and reporting on germination rates and the data will be turned in as part of a NASA project.

• **Cold Frame Construction** – Grades 9-12 and some community adults built a cold frame greenhouse at the school. Students will be able to start plants in cooler weather and keep them growing in the structure.

Extension personnel who taught and assisted with the day’s activities were: Bill Cook, Kim Johnson, Kim McReynolds, Savanna McReynolds, Ashley Menges, and Britta Schnebly.

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**National Agriculture Week**

Kim McReynolds, Greenlee County Extension Director

Greenlee County Cooperative Extension celebrated the importance of agriculture to the state of Arizona and Greenlee County on March 25th at the Duncan Annex Building. Educational stations were set up for youth and adults to learn about the following:

- The economic contribution of agriculture to our state and county economy.
- The unique qualities of water. Participants experimented with how many drops of water can fit on a penny, learning about cohesion and adhesion of water molecules.
- Participants did easy stretches to stay in shape, and played the Moo-merry Game, learning about dairy products.
- Tasting agricultural products. Beef sticks, cheese, and different flavored milk.
- Learning about the biproducts that come from cattle.
- Learning the importance of planting and nurturing garden plants.

Thank you to the following for providing educational booths and products:

*Greenlee Cattle Growers’ Association*
*Arizona Farm Bureau*
*Arizona Beef Council*
*United Dairymen of Arizona*
Nutrition Education, SNAP-Ed
Britta Schnebly, Program Coordinator
The 2022 school year brought many opportunities for the Duncan Head Start and Duncan Elementary School students (K-5) to get their hands digging around in the school gardens. These experiences corresponded with and augmented the SNAP-Ed nutrition curricula chosen for each grade. The following descriptions for each grade level highlights both the successful gardening endeavors we achieved, and the adaptations made when plans went awry. Even though some of our gardening experiences didn’t turn out as well as we’d hoped, the students are eager to see what adventures await them next in the following school year.

Head Start: One of the most significant activities was the installation of new metallic raised beds to replace old wooden ones that were falling apart. In these new garden beds, the preschoolers planted radishes and snap peas and were able to harvest some by the end of their school year.

Kindergarten: The kindergarten class planted peanut seeds into starter pots and with the help of the Jr High Ag students, transplanted them into the school gardens to grow over the summer and harvested in the fall as 1st graders.

1st and 2nd: We planted cabbage and Swiss chard seeds in starter pots, but these grew too fast and too leggy, dashing our hopes of them maturing into edible vegetables. Instead of vegetables, edible flowers became our next experiment. We planted nasturtiums into the garden beds and were able to taste the leaves (yes, they are edible, too!)

3rd: We attempted to plant beets in containers, but the beet roots didn’t grow. However, the beet tops grew well. Instead of harvesting and eating beets, we harvested the tops and ate them in a salad. Many of the students had never had beet tops before and were surprised at how similar it was to baby spinach.

4th: The Swiss chard endeavors for the 4th grade were more successful than the 2nd grade. The 4th graders were able to transplant their chard from seedlings, to pots, to the school gardens, also assisted by the Jr High Ag students. The 4th grade students were able to try some of the chard, right off the plant, before the school year ended.

5th: The gardening activities for the 5th grade consisted of planting a variety of herbs: cilantro, thyme, oregano, chive, and mint as seeds, then when mature enough, transplanting them into take-home pots. We made a red leaf lettuce and strawberry salad and the students had to decide which herb they would add to their salad, then rate the taste of the salad before and after they added the herb. This experiment demonstrated to the students those herbs can add a lot of flavors to a dish or recipe.

For the upcoming summer cooking classes for kids at the library, we are trying a new approach. Rather than one day a week for 5 weeks, the format will be two sessions (June and July, one per month) of two days for ages 6-8, and two sessions of 3 days for ages 9-12. I’m excited to see how this new arrangement will enhance the summer cooking program.
STEM Education
Kim Johnson, Instructional Specialist, STEM

We offer many opportunities for our youth to engage in supplemental STEM activities. Over the summer we hold STEM education camps at the Clifton and Duncan Libraries. We also hold these camps and other activities at the libraries during school breaks. During the school year we offer many projects and activities at Metcalf Elementary to provide more opportunities for that spark of learning we seek in our youth.

The 4th grade at Metcalf spent the last semester working on activities that centered around planning a manned space flight to Mars. Students studied maps to learn the best and worst landing sites. They planned what to bring along to build and grow food in a greenhouse. They tested seeds that traveled to and back from the International Space Station to see if germination rates were affected. These activities were couched in game form and experiential learning. I think they had as much fun as I did.

We also held Water Fest 2022 at Metcalf on May 6th. With the help of the 4th-grade teaching team and a host of parent volunteers, we rotated all five classes through three stations. These stations taught them about the water cycle through a traveling water molecule game, groundwater recharge and rates of infiltration through different soil media, and Southern Arizona water history and historical water artifacts. Dowsing rods were a big hit.

The state 4-H program offers STEM programs open to all 4-H’ers through STEM YOUniversity. These programs include opportunities to build underwater robots, go to space camp in Florida, build a working model greenhouse, and be an ambassador in your county or the state for 4-H STEM. If you know a youth who loves STEM and might enjoy these projects, please contact me at krobbjohnson8@arizona.edu.

Horticulture Program
Bill Cook, Program Coordinator

Monthly gardening classes are underway on the 2nd Saturday of the month. Classes are hands on and presented to fit the upcoming garden activities, such as planting, pruning, soil preparation. For more information and a list of classes, contact Bill at wrc@email.arizona.edu or visit our Horticulture and Master Gardener page for a schedule of classes.
With the help of AmeriCorps member, Savanna McReynolds, our YouTube channel is growing! We are happy to be offering many short videos on a variety of garden subjects. More videos are being added, with some of the older videos being updated and improved. **Be sure to check the channel regularly!**

| Links listed in newsletter are live in the electronic version. Here are the addresses for you – |
| STEM YOUUniversity - [https://extension.arizona.edu/about-4-h-stem-youiversity](https://extension.arizona.edu/about-4-h-stem-youiversity) |
| Horticulture and Master Gardener - [https://extension.arizona.edu/greenlee-horticulture-master-gardener-classes](https://extension.arizona.edu/greenlee-horticulture-master-gardener-classes) |
| UACE Greenlee County YouTube - [https://www.youtube.com/channel/UC9yQoIdTyDXuUtyS5yahS0LQ](https://www.youtube.com/channel/UC9yQoIdTyDXuUtyS5yahS0LQ) |
| UACE Greenlee County Facebook - [https://www.facebook.com/greenleeextension](https://www.facebook.com/greenleeextension) |
| Greenlee County 4-H Facebook - [https://www.facebook.com/GreenleeCounty4H](https://www.facebook.com/GreenleeCounty4H) |
| UACE Greenlee - [https://extension.arizona.edu/greenlee](https://extension.arizona.edu/greenlee) |