

Sonoran Seasons

Pima County Master Gardener Newsletter Spring 2015

Helping you become a more successful gardener



Greetings to all of our gardening friends in Tucson, Green Valley, and throughout Pima County.

We've created a new Newsletter and we're sending it to you because at some time in the past you indicated your desire to receive communications from the Master Gardeners to inform you of our activities and events. We believe you will enjoy it, but if you would rather not receive these communications, please use this link to [unsubscribe](#). No password is required.

This is our first issue of what we hope will become a welcome and useful communication to help you become a more successful gardener. We've named the newsletter "Sonoran Seasons" to recognize the unique seasonal conditions we have in the Sonoran Desert. Thanks to the monsoon, we have **five** seasons to enjoy, with gardening opportunities (and duties) in each. This first issue of Sonoran Seasons will focus on our spring season.

Thank you very much for your support through the years. We now have 150 Master Gardeners serving our community in a variety of outreach activities including gardening talks at libraries and other organizations, a plant clinic you can call or visit with your questions, UA Arboretum tours, seminars, workshops, tri-annual plant sales, and wonderful demonstration gardens in Tucson and in Green Valley. We are also supporting outreach gardens at the Tubac Presidio, Tumacacori Mission, Garden Kitchen, Juvenile Facility, and the Tucson Village Farm.

We are looking forward to seeing you at some of our events and activities this year. And please forward this newsletter to any friends who might be interested in subscribing and participating.

In this first issue of the newsletter we've packed a lot of information: some technical, some reminders and tips, and some introductions to our programs. We'd like to hear from you about this newsletter (pro and con) with any suggestions for future issues. At the end is an email address to use to provide us with your feedback.

Finally, we are a self-funded, not for profit, volunteer organization. To help us fulfill our mission, please consider a tax-deductible gift. It will be greatly appreciated. [Click here to make a secure donation.](#)

Happy gardening!

Paul Ellis, Master Gardener Coordinator



Contents

- Key Events and Activities
- UA Campus Arboretum
- Spring Gardening Reminders
- Featured Demonstration Garden-The Color Garden
- All Star Plant
- Everything you need to know about APHIDS.
- Ask a Master Gardener—Weeds Galore.
- Have a problem or question?
- New Home Garden Consultation Program
- Donate to the Master Gardener Program
- About Master Gardeners

Key Events and Activities

- **February**
 - [Spring Seminar: Saturday, 2/28, Companion Planting, 9:30-11:30**](#)
- **March**
 - [Arboretum Tour: Saturday, 3/14, Arboretum History, 2:00-3:30*](#)
 - [Arboretum Tour: Sunday, 3/15, Edible Landscapes, 2:00-3:30*](#)
 - [Arboretum Tour: Friday, 3/20, Sonoran Native Plants, 10:00-11:30*](#)
 - [Spring Workshop: Sunday, 3/22, Pressed Flower Cards, 9:00-11:00](#)
 - [Arboretum Tour: Saturday, 3/28, Edible Landscapes, 10:00-11:30*](#)
- **April**
 - Arboretum Tour: Friday, 4/10, Arboretum History, 12:00-1:00*
 - [Spring Plant Sale: Saturday, 4/11, 8:00-11:00](#)
 - Arboretum Tour: Wednesday, 4/15, Edible Landscapes, 9:00-10:30*
 - [Spring Workshop: Saturday, April 18, Irrigation Basics, 9:00-11:00](#)
 - Arboretum Tour: Saturday, 4/25, Trees Around the World, 9:00-10:30*
 - Arboretum Tour: Wednesday, 4/29, Medicinal Plants, 9:00-10:30*
- **May**
 - Arboretum Tour: Saturday, 5/2, Sonoran Native Plants, 8:00-9:30*
 - [Spring Workshop: Saturday, 5/2, Native Bee Habitat, 9:00-11:00](#)
 - Arboretum Tour: Friday, 5/8, Tropical Trip, 8:00-9:30*
 - Arboretum Tour: Saturday, 5/23, Trees Around the World, 8:00-9:30*

Library Talks take place frequently at several libraries in Tucson. [Click here for the schedule and topics.](#)

*To register for Arboretum Tours call (520) 621-7074 or email infoarboretum@ag.arizona.edu Tours begin near fountain on west side of Old Main.

**All Spring Seminars will be held in the Controlled Environment Agriculture Center (CEAC) conference room at the U of A farm at 1951 E. Roger Road, one block east of Campbell. Look for the signs. Class Fees: \$7 Master Gardeners/ \$10 general public (cash or check only). Due to limited seating, please call Francine Correll at the Pima Extension Office to register: [520-626-5161](tel:520-626-5161)

UA Campus Arboretum--Doug Holland, Master Gardener

Would you enjoy a quiet weekend walk amid beautiful trees? Come to the Campus Arboretum; parking is free on most weekends and students sleep late. Don't forget your laptop or smart phone. The campus has free wifi. Access the Campus Arboretum site arboretum.arizona.edu to learn about the trees you are enjoying. You may be inspired with some new landscaping ideas.

Before you set out for campus, you may wish to become familiar with the site at home. Click on [Find Trees & Tours](#) to search for plants based on their characteristics or select the [GIS Map](#), to geographically locate a campus plant.

Click on any of the little green dots to learn about the tree located there. Alternatively, you can click on the magnifying glass on the upper left to do a search for a tree you would like to see. Clicking of the three bars in the upper left will take you to the menu where you have options for other ways to use the map.



If you go back to the Home Page, you will find many others ways to use this site. Use the site instructions to [learn about The Campus Arboretum's guided tours](#), or [subscribe to the E-Newsletter](#). You may also wish to LIKE the UA Campus Arboretum on Facebook to learn about trees, or to learn about tours and other upcoming events offered.

Spring Gardening Reminders--For a complete overview of planning, preparing, planting, and caring for a winning vegetable garden, click on [Ten Steps to a Successful Vegetable Garden](#).

March

Average last frost date is mid-March.

Plant Warm Season Vegetables such as tomatoes, peppers, eggplant, cucumber, summer squash, melon, and sweet corn.

Prune frost-damaged plants such as bougainvillea and lantana.

Plant trees and shrubs of all types, including citrus. March is a good time to plant new landscape plants.

Check and adjust your irrigation system.

April

Protect young plants from wildlife. The best way to keep out critters is to fence them out with poultry or woven wire fencing. The wire fencing should be two to three feet high.

Look for aphids feeding on the new growth of vegetable plants, flowers, roses, oleander, fruit trees and shrubs. Please refer to our feature article this month on aphids for more information.

Add color to your landscape with the planting of summer season annual flowers. The best heat tolerant flowers include: zinnia, marigold, portulaca (moss rose), Madagascar periwinkle, celosia (cockscomb), red and blue salvia, dusty miller and cosmos.

Thin fruit of deciduous trees such as apple, peach, plum and apricot. Pick the small fruit off,

so that the fruit are spaced 6 inches apart.

Plant vegetable seeds of melons, squash, cucumber and sweet corn directly into the garden. Prepare the seed bed by mixing in lots of organic matter such as compost and manure.

Apply chelated iron to plants such as citrus, gardenia, pyracantha, nandina, and bottle brush. Iron deficiency is characterized by a yellowing of the leaf portions between the leaf veins on newer growth.

May

Plant heat-loving flowers to replace the winter annuals that are now succumbing to the heat. The best heat-loving summer annuals include; pentia, moss rose, zinnia, Madagascar periwinkle, verbena, celosia and salvia.

Fertilize citrus for the second time (February is the first) using a high nitrogen fertilizer such as ammonium sulfate (21-0-0), at the rate of 2 pounds per mature citrus tree. Use half that rate on grapefruit.

Fertilize palms using a special "palm fertilizer" available at garden centers. Make a second application of fertilizer in July.

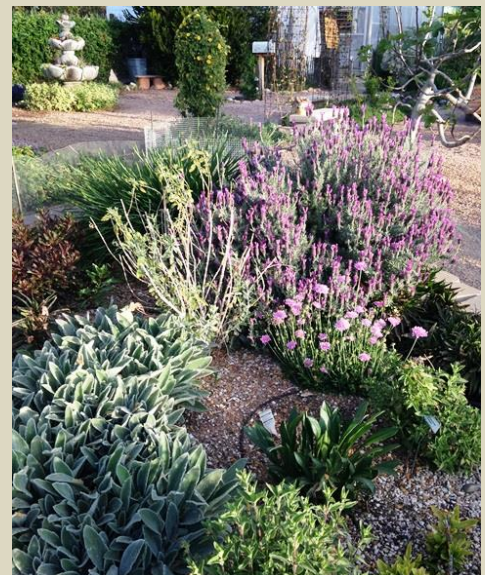
Plant and transplant cacti, agaves, palms and other heat loving plants. Warm weather provides optimum growing conditions, including the generation of new roots.

Featured Demonstration Garden—The Color Garden **Jennifer Greig, Master Gardener**

If you haven't visited our Demonstration Gardens, you're in for a treat. We have twelve gardens focused on different aspects of gardening, as well as our propagation area. They're located at our headquarters, 4210 N Campbell, and we offer free tours at 9:00 a.m. every Wednesday and Saturday. We also have demonstration gardens at our Green Valley facility. More information follows this article and through this [link](#).

In this first issue of our newsletter, we're featuring our vibrant Color Garden. Situated between the Rose Garden and the Raised Vegetable Garden, the Color Garden includes trees, vines, shrubs, and annual flowers. The goal is to create a mass of color throughout the growing season with a wide variety of plants.

Besides a huge Sweet Acacia tree, there are two Anna Apple trees, a Kadota fig, a Photinia, a Twisted Myrtle, and a Burgundy Plum, which add flowers and fruit to the landscape.





The south ocotillo fence supports a variety of vines: Mexican Flame Vine (see All Star Plant below), Cat's Claw, Carolina Jessamine, Pyracantha, Star Jasmine, Trumpet Honeysuckle, and Queen's Wreath.

The perennials are scattered around the garden for yearlong color, and annuals are added for shorter bursts of color. Two beds focus on Hot and Cool colors. The Hot bed contains flowering plants of yellow, orange, and red hues. The Cool bed focuses on white, blue, lavender, pink and purple flowers. Other beds feature ground covers, salvia and succulents.

Chairs Jennifer Greig and Maria Carbajal are working with the committee to open up the current beds to display more annual flowers and expanding their perennial plants. Perennials live a long time,

repeat a floral show annually, and are not demanding.

Come visit the Color Garden to see the wide variety of plants that can be grown in Tucson, and to get ideas for your own garden.

Free Demonstration Garden Tours are held Wednesdays and Saturdays at 9:00 a.m., weather permitting. (Tours are not conducted if it is raining.) Tours are not conducted during the month of January or on/near major holidays. Clubs and groups who would like a tour at a time or day other than those regularly scheduled may call Pima County Cooperative Education Office, 520-626-5161 and leave their contact information with Francine Correll. A Master Gardener will return the call to set up a time for the private tour. All tours meet outside the door of the Plant Clinic, at the south end of the Extension Office Building, 4210 N. Campbell Avenue. Participants should wear comfortable shoes, hat, and sunscreen. A bottle of water is recommended. Tours last at least one hour. For more information [click here](#).



All Star Plant--The Mexican Flame Vine "Senecio confusus"



The Mexican Flame Vine, sometimes referred to as "The Orange Glow Vine" is a fiery, orange, explosion of color from spring until late autumn. The daisy-like flowers are about one inch in diameter. As the flowers age, the color changes from orange to red, followed by puffy, dandelion like seed heads. Use the seeds to propagate or take cuttings or dig up a part of the stem with roots attached.

The vine is a vigorous climber with woody stalks and deep green, arrow-shaped, serrated leaves. The vine can grow 8-10 feet high. Trim to encourage new growth. Use this vine on a trellis, fence or column.

This native plant from Mexico is not fussy about soil. It prefers bright sunlight, but will tolerate a little shade, and is drought tolerant. It can be grown in USDA zones 9-11. The plant may be killed off by frost, but will recover.

The Mexican Flame vine is seldom bothered by pests. Bees, butterflies, and hummingbirds love this plant with its impressive, vibrant floral display. The Mexican Flame Vine makes a stunning addition to any garden.

Everything You Need to Know About Aphids

Tony Knight, Master Gardener

More than 4,000 species of aphids have been described world-wide, with over 1,300 species occurring in North America. At least 250 aphid species are important pests of crops and ornamental plants.



Rose Aphids (*Macrosiphum rosae*)
Ref: www.britannica.com

Aphids are soft bodied insects rarely exceeding 1/16 to 1/8 inch in length, and come in a variety of colors including green, yellow, black, brown, or red. They have conspicuous slender antennae and two distinctive tube structures protruding from the rear of the abdomen called cornicles. Most of the season aphids are wingless and colonies consist predominantly of females. Normally reproduction is asexual, the female produces unfertilized eggs which hatch in the female's abdomen (parthenogenesis) resulting in the production of live female aphid nymphs (viviparous) that are clones of the female. The aphid goes through 5 nymph stages before becoming an adult.

Multiple generations of daughter aphids are produced throughout the warm months of the year. However, when the colony becomes overcrowded, or the plant on which they are feeding dies, or when day length shortens, winged individuals are produced that enable the colony to repopulate new plants. When temperatures drop to near freezing, aphid colonies produce both winged male and female adults that mate. The female then lays eggs on specific host plants that will hatch the next spring to start a new colony. Aphids that infest greenhouse plants do not undergo sexual reproduction as there is no cold temperature stimulus to do so.

Why are aphids problematic?

Aphids damage plants by sucking sap (phloem) from leaves causing leaves and stems to become distorted. This damage is similar in appearance to that caused by some herbicides. Some plant sap is excreted as honeydew, which makes the plant leaves sticky. Sidewalks, cars, and patio furniture may become sticky with honeydew. A sooty mold often grows in the honeydew and blackens stems, leaves and any other surface. It is quite common to see ants on plants before one notices the aphids on the underside of leaves. Some species of ants provide protection for the aphid colonies they 'farm' for the honey dew.

Some aphid species can be serious plant pests as they transmit plant viruses that cause the deformation of leaves, buds, and flowers. Other species of aphid form plant galls. In general aphid species feed on a specific plant family, and will not feed on other plant families. For example the cabbage aphid only feeds on plants of the Brassica family, rose aphids only prefer roses.

The cabbage aphid (*Brevicoryne brassicae*) is gray-green with a powdery, waxy covering. It is found in clusters on the underside of leaves of cabbage, cauliflower, Brussels sprouts, and radishes. It overwinters as black eggs in northern regions but has no sexual stage in southern regions.

Another common aphid is the yellow oleander aphid, *Aphis nerii* also known as the milkweed aphid. It will infest plants in the families *Apocynaceae* and *Asclepiadaceae*. This bright yellow aphid with the distinct black appendages is commonly found feeding on oleander (*Nerium oleander*), milkweeds, such as pine leaf milkweed (*Asclepias linaria*) butterflyweed (*Asclepias tuberosa*), and scarlet milkweed, (*Asclepias curassavica*), and wax plant (*Hoya carnosa*).



Oleander aphid (*Aphis nerii*). Ref: <http://www.britannica.com>

Interestingly, oleander aphids are poisonous because they sequester cardiac glycosides found in oleander and milkweeds.

(Rothschild et al. 1970). Their bright yellow coloration and

secretion of these bitter cardiac toxins in their cornicle secretions helps protect them from predation by certain species of birds and spiders (Malcolm 1986). The cardiac glycosides however do not harm parasitoid wasps and other insect predators such as ladybug larva that feed on aphids.

Controlling Aphids

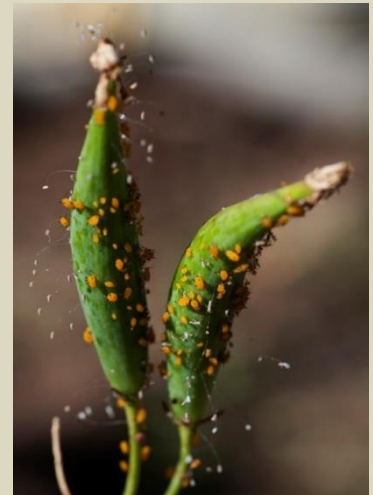
Biological control can be quite effective in controlling populations of aphid. The most common species of parasitoid attacking the oleander aphid is the parasitoid wasp (*Lysiphlebus testaceipes*). The female parasitoid lays eggs in the aphid nymphs that then develop into a papery, light brown, swollen mummy inside of which the wasp larvae develops. (Shown in the photo on the left.) A single parasitoid emerges from the mummy when the aphid's body has been consumed. In addition, insect predators such as syrphid fly larvae; lacewings and ladybug larvae (*Coccinellidae*) feed on aphid colonies.



The least harmful means of controlling aphids is to periodically wash off the insects using a spray of water. Insecticidal soap sprays and Neem oil are also effective. However, insecticidal soaps are toxic to certain beneficial insects such as ladybug larvae, lacewings, and even young monarch butterfly larvae that may be feeding on the milkweed infested with the yellow oleander aphids.

In general, it is best to use the approach of integrated pest management to control aphids, promoting beneficial predatory insects, repeated water sprays 2-3 times a week to dislodge aphids, removal of heavily diseased plants, and where only a few aphids are present mechanically squashing the aphids to control the population.

The photo to the right shows milkweed pods with yellow oleander aphids and a collection of green lacewing eggs, the larvae of which will feed on the aphids.



References:

Whitney Cranshaw. 2004. Garden Insects of North America: The Ultimate Guide to Backyard Bugs (Princeton Field Guides) Princeton University Press.
Rothschild M, von Euw J, Reichstein T. 1970. Cardiac glycosides in the oleander aphid, *Aphis nerii*. *Journal of Insect Physiology* 16: 1141-1145
Malcolm SB. 1986. Aposematism in a soft-bodied insect: a case for kin selection. *Behavioral Ecology and Sociobiology* 18: 387-393.

Ask a Master Gardener--Paul Ellis, Master Gardener Coordinator

Weeds Galore! How do I get rid of them?

We have had a very warm winter so far, and weeds are starting in earlier than normal. Those unappreciated plants are only guilty of growing where we don't want them. Most of our weeds are annuals and will not grow back if simply the leafy, above ground portion is killed. So how do you get rid of them?

Physical Removal: Pull the buggers out by hand, dig them out with a weeder, level them with a scuffle hoe or let your pet goat eat them. Physically pulling them out is not fun and is best done when the weed is young, something many of us aren't. All these methods are effective to a point, but some weeds are perennial and if you leave any roots on perennials, they will be back. Use systemic herbicides on them.

Herbicides: There are basically two types – contact and systemic. A contact herbicide will kill any part of the plant it touches, but it won't kill the root and most likely perennials will grow back. It may or may not be selective. Selective means it kills only certain weeds, such as broad leaf plants. Non-selective means it kills anything it touches. Systemic means the herbicide enters the plant through the leaves and translocates through the plant to the roots and kills the entire plant. This is the best choice for perennial weeds.

So, what to use, if applying herbicides? Most big box stores sell specific herbicides for use on broadleaf plants in lawn areas that will not harm the lawn, such as Spectracide* with 2,4-D. Perennials need a systemic product such as glyphosate (one brand is Roundup*). It has a bad reputation among some gardeners, particularly organic gardeners. I certainly would not use it near edible plants. It is non-selective and kills anything it touches to the roots so you must be careful when using it. It degrades in the soil in about three

days. Glyphosate can also be used to kill any large plant by cutting the stem/trunk about an inch above ground and immediately painting the cut with glyphosate concentrate.

Glyphosate will kill Bermuda grass but the grass needs to be actively growing, as do most weeds. To kill Bermuda, water it, fertilize it, wait a couple of weeks and apply glyphosate. You may have to repeat this process. Always follow directions and wear protective clothing and eye protection.

Never use any vegetation killer such as GroundClear*. They can be spread easily by irrigation or rain.

Pre-emergents stop seeds from germinating but will not kill growing plants. The granular product must be watered in by irrigation or rain. When using an herbicide, always use a pump sprayer dedicated to just herbicides. Don't use it for pesticides later on. It is helpful to add a tablespoon or so of a dish washing liquid to the mix as this helps the chemical stick to the leaves.

I can't leave out our organic gardeners. Two organic based weed killers, Avenger* and Soil Mender* are available. Both are contact herbicides and will have to be applied more often.

*The following brand names are registered trademarks of the respective companies: Spectracide--Spectrum Brands, Inc.; Roundup --Monsanto Co.; Groundclear -- The Scott Co.; Avenger -- Avenger Organics; Soil Mender -- Soil Mender Products. The Pima County Master Gardener Program does not promote or receive any support from specific brand names or companies. Those products and companies indicated are only examples to give the gardener greater knowledge when looking for solutions.

Have a gardening problem/question?

Call our hotline at 520-626-5161-- Monday-Friday 8:30am-4:30pm. Or stop by our Plant Clinic at 4210 N Campbell Avenue in Tucson. Master Gardeners are available to answer your gardening questions over the phone, on a walk-in basis or online at <https://ask.extension.org/ask>. There is no charge for this service. There is also a wall of resources and handouts in the Plant Clinic that are available to the public. Call, stop by or email us today!

New! Home Garden Consulting Service-- We now offer an on-site consulting service to local residents. Master Gardener Consultants who are experienced and knowledgeable in urban horticulture will come to your residence and identify plants, diagnose insect problems and plant diseases, evaluate watering issues, and provide general care guidelines. They'll spend up to one hour in your garden answering questions and helping to problem-solve. No physical labor will be performed. The fee for this service is \$40. This service is available to residents within a 10-mile radius of the Pima County Cooperative Extension Office at the intersection of Campbell Avenue and River Road. To request a consultation, call the Plant Clinic at 626-5161 or email fcorrell@cals.arizona.edu A consultant will contact you to arrange this service.

About Master Gardeners

150 active Master Gardener Volunteers in Pima County work with the University of Arizona Cooperative Extension to support the public with research-based information on environmentally responsible gardening and landscaping.

Our services include:

- A **Free Plant Clinic** to answer plant and gardening questions by phone, walk-in or online.
- **Presentations and Classes** on gardening and landscaping at libraries and other places.
- **Information Booths** at various farmers markets and libraries.
- **Plant Sales** - next one is **Saturday, April 11th, 8-11 a.m.**

Donate to our program

Master Gardeners is a self-funded, not for profit, volunteer program. We depend upon our plant sales and donations from our friends in the community to support our mission. Your tax-deductible donation in any amount will be greatly appreciated. [Click here to make a gift securely.](#)

- [Public Demonstration Gardens](#) - offering free tours led by Master Gardeners.
- [Technical Assistance](#) to educational organizations and institutions.
- [Arboretum Tours](#) on the University of Arizona campus. See article and schedule above.

Persons qualify to become Master Gardener Volunteers by completing a 50 hour training course and an internship. To maintain Master Gardener Volunteer status, a volunteer must participate in a minimum of 50 hours of service activities, and 10 hours of continuing training annually.

Applications for the 2015 Fall Class are now open. Classes will be held Tuesday mornings from 9:00-noon, August through December. The deadline for applications is June 5, 2015. Those selected for an interview will be scheduled for appointment June 22-26, 2015. [Click here](#) for an application form. For more information contact the Pima County Cooperative Extension office in **Tucson at 520-626-5161**, or the Pima County Cooperative Extension Satellite Office in **Green Valley at 520-648-0808**.

Helpful Gardening Links

- **E-answers:** <http://e-answers.adec.edu> **E-answers** is a dynamic, online resource that brings more than 250,000 pages of university information and education to you— when and where you need it. The practical, current, and unbiased information in this site represents the work of Extension Service and Agricultural Experiment Station professionals at more than 50 Land Grant universities throughout the United States.
- **Pima County Master Gardener Website:** <http://extension.arizona.edu/pima-master-gardeners>
- **Pima County Master Gardener Facebook Page:** <https://www.facebook.com/pimamastergardeners>
- **Arizona Master Gardener Manual:** <http://cals.arizona.edu/pubs/garden/mg/> A searchable edition of the textbook used to train Master Gardeners.
- **Community Gardens of Tucson:** <http://www.communitygardensoftucson.org/> With 24 gardens in the Tucson area, this organization provides a place to garden, and the knowledge to help you.
- **The Rose Society of Tucson:** <http://www.rosesocietyoftucson.org/>

Share your feedback

We want this newsletter to be informative, fun to read, and something that will help you become a better, happier gardener. Please let us know how we're doing, both good and not so good. And let us know of any gardening areas that you would like us to address. Send your comments/suggestions via email to: David Williams at williams46@cox.net

Subscribe, Unsubscribe

You received this newsletter because at some time in the past you indicated your desire to receive communications from us to inform you of our activities and events. If you would rather not receive these communications, please use this link to [unsubscribe](#). You don't need a password. On the other hand if you have friends who would like to add their email addresses to our list, have them use this link to [subscribe](#).

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Jeffrey C. Silvertooth, Associate Dean & Director, Economic Development & Extension, College of Agriculture and Life Sciences, The University of Arizona. The University of Arizona is an equal opportunity, affirmative action institution. The University does not discriminate on the basis of race, color, religion, sex, national origin, age, disability, veteran status, or sexual orientation in its programs and activities.