



It is a good bet that within 10 years, all outdoor water use in this region will be exclusively from 3 sources: reclaimed water, harvested rain water and residential graywater.

Val Little - Director
Water CASA

Gardening Insights

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Landscape Irrigation: What's the future for our gardens?

If the Arizona landscape industry were hooked up to seismometers, its inky needles would have jumped off the charts recently on the publication of a white paper by Water CASA which portends an earthquake in the business. Weaning landscapes off potable water for irrigation, which Water CASA's director suggests will happen within ten years, will compel major changes in the design, installation and maintenance of new gardens, and will require substantial revisions of existing landscapes. It will also force consumers to re-think their expectations and aesthetics in creating outdoor spaces.

Replacing potable water with other sources has major limitations. *Reclaimed water* requires its own delivery infrastructure so it will likely be directed to high volume users instead of households. *Graywater*, the water from showers, wash machines and some sinks in homes, needs special plumbing that is not easily retrofitted on existing houses. It is a great feature for new construction, however. *Harvested rainwater* has the most potential. Active water harvesting diverts water to cisterns or other storage systems and can be hooked into drip irrigation. However, storage units can be both large and expensive to install. Passive water harvesting diverts water from rooftops and other hard surfaces to areas where it infiltrates the soil for plant use. It is often a rather simple solution and has the greatest potential for widespread adoption. It is especially effective when combined with native plantings.

Is the situation hopeless? Will Tucson turn into an arid wasteland without a trace of greenery or shade? The answer is a resounding NO. To be certain, the change will not be painless, but it presents an opportunity to create attractive, ecologically sensible landscapes that celebrate the unique flora of our area and attract and nurture more songbirds, butterflies, pollinators and other native creatures. Here are a few ideas for surviving and thriving after the landscape earthquake.

- **Explore options for using runoff water** from your roof and other hard surfaces. It might require only simple adjustments and minor earthworks. Passive water harvesting can, in effect, double the rainfall on a landscape.
- **Begin the shift to native plants.** If you're renovating a garden or planning a new one, look to local plants that survive on rainfall or with supplemental water only from water harvesting.
- **Incorporate more art and color in your garden** to provide pizzazz instead of annual flowers or high water shrubs.

The Water CASA white paper and other documents are available online at: www.tucsonpimawaterstudy.com



Apple spice coffee cake

This cake is a perfect treat with a hot cup of coffee or tea on a blustery winter day. My wife remembers liking it as a child despite the fact it actually contained coffee! She uses less sugar than specified in the original recipe, which came from her late Aunt Cleo in Plymouth, Massachusetts.

Ingredients:

- 1 & 1/2 cups flour
- 1 teaspoon baking soda
- 1/4 teaspoon salt
- 1 teaspoon ground cinnamon
- 1/2 teaspoon ground cloves
- 1/4 teaspoon ground nutmeg
- 1/2 cup (1 stick) butter, room temperature
- 3/4 cup sugar (1 cup in original recipe)
- 1 egg
- 1/2 cup cold strong coffee
- 1 cup each, chopped: toasted walnuts, raisins, peeled fresh apples (Granny Smiths work well)

Directions:

- Preheat oven to 350 degrees F.
- Lightly grease an 8" - 9" square baking pan, or 2 loaf pans
- Measure and mix together dry ingredients and set aside.
- Cream butter and sugar until fluffy.
- Beat in egg.
- Gently stir in dry ingredients and coffee in small batches.
- Stir in nuts, raisins and apples.
- Bake until a toothpick inserted in center comes out clean - for square pans about 50 minutes, for loaf pans about 35 - 40 minutes.



Many thanks to all of you who stopped by for the TPAC open studio tour. It was a terrific event and we had a steady stream of visitors. Several of my bee habitats found new homes too!



Plant of the month

Justicia californica (Chuparosa)

Winter blooms on native plants are rare indeed. Most of our locals have tropical origins and flower during the warm parts of the year. A notable exception is Chuparosa. It blooms from November through February in masses of red or yellow flowers that hummingbirds adore. The flowers are edible too! They taste like sweet cucumber and are a nice addition to a green salad.

Chuparosa is very drought tolerant and survives without irrigation in landscapes with passive water harvesting. It is a twiggy shrub, typically 4' by 4' but I've seen it much larger in favorable conditions.

Because of its loose growth habit, it's best used in casual gardens as a background plant in warm microclimates. It takes frost, but I wouldn't recommend it for the coldest parts of Tucson. Plant it in rock gardens, against walls, or with bold vertical plants like Senita and other large cacti. An attractive mixed shrub planting would team it up with deeper green plants like Turpentine bush (*Ericameria laricifolia*), Creosote (*Larrea divaricata*), and Flat-topped buckwheat (*Eriogonum fasciculatum*).

Opportunities

Chipotles, Posole, and Beans from Native Seeds/SEARCH

Native Seeds/SEARCH (NSS) is a terrific source for local, tasty, and inexpensive gifts for the holidays. My favorite for mailing to friends is ground chipotle. The packets exude a pungent smoky aroma of fire-dried jalapeños that says Mexico like nothing else.

NSS heirloom beans are miniature artworks - little ovals splashed with reds and purples, browns and yellows. They put Navy beans to shame and taste better too! It's almost a pity to cook them though.

Posole, while somewhat less attractive than the beans is a delicious, chewy addition to stews. These dried corn kernels puff up with slow cooking and have enough body to substitute for meat in vegetarian dishes.

These items are not fragile and ship easily. Send some off so your friends can enjoy a bit of Tucson for their holidays!

Native Seeds has a retail store at 526 N. 4th Ave. Tucson, AZ 85705
Phone: 520.622.5561
www.nativeseeds.org

Other notes

In the next issue:

- Ecologically sound packrat control
- Useful objects from old X-mas trees!
- Staking young trees
- Indigo bush (*Dalea versicolor* v. *sessilis*) another native winter blooming shrub!



Multi-Artist Sale December 5th!

My wife Susan and I are participating in a multi-artist sale on Saturday, December 5th at 4221 E. Burns Street in the "Poet's Corner" neighborhood. There will be a dozen artists there with paintings and photography, jewelry, ceramics and more. Susan will have her paper sculptures including the mini-chickens featured in the photos above. I will have bee habitat sculptures, wall mounted habitats, and garden benches.



Feel free to forward this newsletter to friends or have them contact me to get on the mailing list. Past issues are available at GardeningInsights.com.

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