

The Virtual Gardener—Winter 2007-2008 Climate Predictions

Two ominous observations.

First observation: Only a few weeks ago I heard on TV that the cost of heating fuel was going to increase this winter and that, combined with a colder winter, would cause heating bills to skyrocket.

Second observation: The cactus wrens have been busy building over-wintering nests around my patio for the past couple of weeks. These are not wimpy little affairs but huge things with at least R-70 insulation ratings. Do the wrens know something about what's coming that I don't know?

It appears that the TV weathermen and the birds agree. This is going to be a cold winter. But just how cold? Will glaciers form in the Huachucas? Will my plants survive?

Next to cactus wrens, TV weathermen, and Ouija Boards, probably the next best place to look for projections of winter conditions is the on the National Weather Service (NWS) Climate Prediction Center website at http://www.cpc.ncep.noaa.gov/index.ht ml. so off I went to the Web. At the NWS website I found temperature and precipitation projections for periods ranging from a week to months in the future. I also checked another climate prediction website that specifically focuses on Arizona and the Southwest. the Climate Assessment for the Southwest (CLIMAS) website at http://www.ispe.arizona.edu/climas/fore casts/swoutlook.html. CLIMAS uses the NWS predictions but gives the discussions more of a local flavor.

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Looking at the three month projections for temperatures, which takes us through the middle of January 2008, I found that the NWS and CLIMAS weather gurus are predicting a warmer than normal winter for most of the country! And the areas that are not supposed to be warmer than normal are forecast to be about normal. So what gives?

The TV news forecasts of a colder winter were based on the same NWS projections that I looked at, but instead of looking at the rosy side of the picture the TV weather gurus picked up on a statement that the coming winter would be cooler—by 1.3 percent to be exact—than last winter (which was much warmer than normal). I guess telling us how lucky we are to have a warmer than normal winter during this time of high fuel costs doesn't sell much copy. A Chicken Little message is more effective.

So what about Southeast Arizona? What do the NWS wizards have to say about our winter?

Well, the birds and the NWS guys disagree. Southeast Arizona is clearly in the NWS "above normal temperature" area. Here's how they come to that conclusion.

The NWS weathermen start their predictions by assuming equal chances that the winter will be below average, above average, or average for temperatures and precipitation in any given area. They then look at the large "teleconnections" that influence weather conditions around the globe such as the El Niño Southern Oscillation (ENSO), the North Atlantic Oscillation (NAO), and others to see what hints they may provide. Next they look at current conditions and long term averages for the area. And finally, they run all this data through a computer model that kicks out the magic numbers that bump the probabilities up or down for the area.

Currently La Niña conditions in the Eastern Pacific are strengthening and are forecast to continue. Sea surface temperatures there are running about 3 to 4 °C (3.6 to 5.4°F) below normal. Since there is a good correlation between La Niña conditions and warmer winters in the Southwest, the odds are tilted in the direction of a warmer (and dryer) winter here. Add to that the long string of warmer than normal winters we've been having and you get a forecast for a warmer than normal winter in Southeastern Arizona. Specifically, the model results show that we in Southeastern Arizona have somewhere between a 50 to 60 percent chance of having a warmer than normal winter this year.

That's the good news. The bad news is that Southeastern Arizona has a 40 to 50 percent chance of

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Robert E. Call Extension Agent, Horticulture

> Carolyn Gruenhagen Editor

being dryer than normal for the early part of the winter (November through January) and a 50 to 60 percent chance of being dryer than normal during the later part (December through February) of the winter. Paradoxically, while drought conditions are expected to worsen in Western Arizona, they are expected to improve slightly in Southeastern Arizona.

I don't know about you, but whatever the computers say, I'm keeping my eyes on those wrens.



Until next time...Happy Surfing!

Gary A. Gruenhagen, Master Gardener virtualgardener@cox.net

"To witness change and growth and evolution and the cycle of nature in our gardens. . . Is truly miraculous, and one of the greatest joys in life."

-Howard-Yana Shapiro Author/seedsman

High on the Desert

The 15th annual High Desert Gardening & Landscaping Conference sponsored by Cochise County Master Gardeners Association in conjunction with the University of Arizona will be held Friday and Saturday, February 15 & 16, 2008 at the Windemere Hotel & Conference Center in Sierra Vista. Registration forms will be available on the web site and Cooperative Extension office after January 1. There is a fee for this conference. Scholarships are available—see Page 4 of this newsletter for details.

Angelita Daisies

Tetraneuris acaulis (Hymenoxys sp.)

Several years ago at one of our High on the Desert Gardening & Landscaping Conferences, I bought one of these little beauties and planted it in my front yard. My front yard is kept very natural and wild, mostly planted with native plants or desert adapted plants. Here the plant feels right at home and has naturalized nicely. There are little clumps of it all through the yard. It is such a happy looking pretty plant forming a neat round clump of green, grass-like foliage that stays evergreen, topped with daisy-like yellow flowers.

This plant is a perennial, native to the dry and high mesas and rocky slopes of Arizona, Colorado, and Mexico. It is also found around the rim of the Grand Canyon.

Angelita Daisies have a long taproot that insures survival in drought situations, but makes it very hard to dig up. The plant is best propagated by seeds. In our climate the daisies have a long blooming season and are showy from spring until frost. In areas



Tetraneuris acaulis

with warm winters the plant will bloom all year long. The yellow flowers are carried on single stems, elevated from the green tufts of leaves that remind me so much of *Armeria* (Seadrift).

These are small plants, about eight inches high and one foot wide. Plant it in full sun. The plant is drought tolerant but some irrigation ensures best bloom.

Angelita Daisies are not fussy about soil or need to be fertilized, at least I never have, but they do demand good drainage. The flowers come in spurs and after they fade, I sheer the empty stems off to make the plant look tidy and ready for the next bloom. This is about the only maintenance I give them.

Angel Rutherford, Master Gardener

Cuttings 'N' Clippings

- * The next CCMGA meeting is 5:00 p.m. Thursday, November 1, 2007 in the Public Meeting Room at the University of Arizona South campus. Tom Deecken will be the speaker. His program will cover identification and distribution of some of the rare plants of the Coronado National Forest, concentrating on the mountain ranges south of Interstate 10.
- * There are no more Water Wise Workshops scheduled for 2007. Watch for them to begin in January.
- * Due to popular demand, the Sierra Vista Farmers' Market continues Thursdays through April. It is held from Noon—4:00 p.m. on the NW corner of Wilcox and Carmichael. For more information e-mail vallimac@cox.net or call 266-1976.
- * From the 3rd to the 15th of November, The Huachuca Art Gallery has a show at the Mall of Sierra Vista. Among the art pieces on display will be two pieces of Scratch-Art and one Photo from Master Gardener Angel Rutherford.
- ** On Monday, October 29, a small garden was dedicated in the memory of Penny Artio on the campus of the University of Arizona South just west of the observatory. Penny passed away suddenly last April. She had been the UAS groundskeeper. A large group of friends and family were in attendance. Thanks to the many Master Gardeners volunteers who designed and built the memorial.

Frost Protection

As the nights have been getting progressively colder, our plants have been moving gradually into dormancy. A drop in temperatures followed by a rise will often slow this move to dormancy and increase the chance of frost damage. Watch for unusually warm periods followed by sharp drops in temperature. During the early winter and early spring when temperatures fluctuate is when most frost damage occurs. Warning signs of potential frost in Cochise County are the same as in other parts of the country; still air, no cloud cover, very bright stars, low humidity, and low temperatures early in the evening (45° F. or lower by 10:00 p.m.).

The best frost protection strategy for Cochise County is to plant only those varieties that are hardy to frost. If you've already planted frost-tender ornamentals outside, you should probably move them to containers for the winter or replant them in warmer microclimates in your yard. Other frost protection strategies are cardboard boxes inverted over plants at night (removed during the day), vertical water tunnels made of plastic and set upright around plants (sold in catalogs), and old quilts, blankets, or sheets laid over planting beds at night and removed each morning. Do not use plastic. An unusual cold spell or long, hard frost can kill or seriously injure mature trees that are only marginally cold-hardy.

Jackie Dillon-Fast, former Cochise County Master Gardener (Reprinted from the November 1992 Master Gardener Newsletter)

High on the Desert

High Desert Gardening & Landscaping Conference Scholarship Application

The Cochise County Master Gardeners Association (CCMGA) is awarding up to three full scholarships to the 2008 High Desert Gardening & Landscaping Conference to be held at the Windemere Hotel & Conference Center, Sierra Vista, AZ, February 15 & 16, 2008. Applicants are invited to submit an essay on one of the following topics:

- Gardening for food production
- · Landscaping with native plants
- Environmental stewardship

Essays must meet the following criteria:

- 1. 750 to 1,000 words in length.
- 2. Double spaced and typed on plain bond paper a disk or CD included.
- 3. Represent original scholarship and be suitable for publication. All references and authorities cited must be properly attributed.
- 4. Entries must be accompanied by an official cover sheet available from the Cooperative Extension Office at the University of Arizona South campus or from the web site: www.ag.arizona.edu/cochise/mg
- 5. Entries must be received at the Cooperative Extension Office, 1140 N. Colombo, Sierra Vista, AZ 85635 not later than close of business on January 18, 2008.

Entries will be judged by the Cochise County Horticultural Extension Agent and a committee of Master Gardeners appointed by the President of CCMGA. The awardees will be notified not later than January 25, 2008 and their names published in the February 2008 Master Gardener Newsletter.

November Reminders



- This is a good time to install a drip system
- Replace summer mulch with fresh mulch
- Start a winter herb garden
- Protect plants from frost (The bulletin Frost and Frost Protection is available from the Cooperative Extension offices.)

The Agent's Observations

We live across the street from a church that has quite a bit of lawn. There are as many weeds as there is lawn. They water

every night. I thought that lawns should be water less often. What can I tell them to do?

To start with the grass should be mowed at the proper height. In fact it is better to leave the lawn a little longer, rather than shorter. This allows the lawn to shade the soil and helps keep down weeds. Also, proper fertilization with nitrogen fertilizer, will allow the grass to out compete the broadleaf weeds. Grass has a physiological advantage over most broad leaves in they way that part of photosynthesis is done. They are 25 to 35% more efficient energy producers. Given a chance grass will out grow broad leaves. That chance is higher mower blade height and nitrogen fertilizer. A complete fertilizer is not needed in this area for good lawn growth, just nitrogen, like ammonium sulfate (21-0-0). If there is a mix of warm and cool season grasses it make maintenance trickier.

Watering the lawn every day is not good for the lawn or the pocket book. It is much better for root development to water deeply and less often. Most of the turfgrass roots are growing in the top 12" of soil. The exception is fescue that may have roots as deep as 24". Water every three days during the heat of the summer should be enough if done properly. As the weather warms in summer and then cools in the fall, watering times need to increase and decrease. Adjusting the frequency of the irrigation system should be done every month or two, while maintaining the same watering time. The water needs to penetrate the soil just below the root zone. At the church this is not the case. There is available a newly updated publication titled Lawn Care for Cochise County. It has calendars for maintaining warm and cool season grass, as well as a watering guide and information on when to fertilize which types of grass. Pick one up at the Cooperative Extension Offices in either Sierra Vista of Willcox.



Should I fertilize my trees this fall before they go dormant?

If the trees are ornamental or shade trees do not fertilize them. They normally need no fertilization. If they

are fruit or nut trees then a onethird the recommended dose of nitrogen (N) can be applied in the fall. (See chart below.) It is best to do this in October, but if the weather stays warm then a November application can be made. Annual recommendations for N are based on trunk diameter in inches. So, in the examples below the trunk diameter is six inches. Multiply that by the N needed per inch of trunk. Then divide that number by the percentage of N in the fertilizer. Example for apple: 0.10 lb. N X 6" = 0.6 N, then $0.6 \div 0.21$ (21%) = 2.857 or 2.9. So, apply onethird of the total amount or ~ 1.0 pound of 21-0-0 this fall; onethird next spring at bud break and the final pound about six-weeks later.

Robert E. Call Extension Agent, Horticulture

Fruit or Nut	Nitrogen/inch of trunk	Annual 6"	Pounds of 21-0-0
	diameter	Requirement	
Apple, Pear, Pistachio	0.10	0.60	2.9
Stone Fruit*	0.05	0.30	1.4
Pecan	0.33	2.00	9.5

^{*}apricot, cherry, peach and plum

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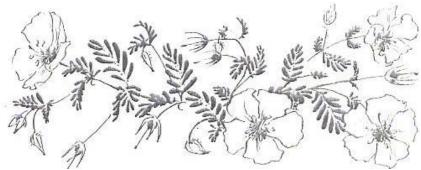
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Did you know . . .

Rose V. Land, who passed away on December 27, 2005, was the first illustrator for this newsletter? Her lovely illustrations were featured from December 1989 to November 1991. Her works have been contributed to the Cochise College Foundation with the intent that they be sold to raise money for art scholarships.

A reception for the Rose Land Retrospective Exhibit will be held Saturday November 3, from 2:00—5:00 p.m. at Cochise College Benson Center. Hundreds of art pieces will be on display and for sale There are watercolors, acrylics, etchings, pastels, charcoal, pottery, stone carvings, and more. The event is free and open to the public. The collection, to be exhibited through December, represents the lifetime work of Rose Land.



Eschscholzia mexicana by Rose Land