



Hope for Rain, Plan for Drought

By Alice Cantelow

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We're all holding our breath -- will the El Nino really come? Will the drought finally end? Can we return to our water thirsty ways? Maybe, maybe, and no!

This is not the first drought, nor will it be the last. In fact, let's look for a second at California climate history, both the wet and dry. The period from about 1850 to 2000, when Placerville and California were exploding with growth, was actually unusually wet in the Sierra Nevada. Great floods occurred in the 1860's and the entire Central Valley was described as a vast "inland sea" for weeks at a time in many winters. Dry wheat farming, where rains alone supplied irrigation, was widespread in the Central Valley during the 1880's. In 1956, the newly-finished Folsom Reservoir, expected to take about a year to fill, instead filled in just one week of phenomenal December rains.

And yet there were also droughts. In 1862 to 1865 cattle corpses littered the Central Valley floor. In the period between 1928 and 1935 farmers watched helplessly as water levels dropped, fruit was falling off trees prematurely, and cattlemen desperately sought pastures suitable for their livestock. Many California seniors remember the severe but short drought of 1976-1977, when we all changed our habits to "if it's yellow, let it mellow... if it's brown, flush it down."

Looking back still further in time can be even more alarming. In the Middle Ages, Native Americans here in Central California experienced at least two devastating droughts: one that lasted 150-plus years in the period from about 1050 to past 1200, and one that lasted over 100 years in the 1300-1400's. A whole century of drought -- can you imagine?

So what's this all mean and, more importantly, what can we expect in the future?

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When we want to know how to live a long and healthy life, we turn to the scientists who study such things. When we want to know what to expect from climate, we do the same and we turn to climate scientists.

What climate scientists are telling us is sobering. The planet is warming and at a much, much faster rate than can be explained by astronomical position or other natural phenomena. It would be easy to say oh well, it's just a few degrees. But even a one degree Celsius increase in the temperature of the ocean surface can markedly affect ocean currents, which are the big drivers of most California weather. Remember, climate is the long picture and weather is the daily situation.

Figuring out future climate is very important, but of course rather tricky. To try and figure it out, climate scientists have developed numerous complex models. These sophisticated models are each based on varying assumptions and show varying results; some with much higher temperatures forecast for the future than others. But basically all the models agree that the planet will continue to warm for many years.

For Placerville in particular, what do the models say? We are sort of in-between the southwest, where drier climate is expected, and the northwest, where wetter climate is expected. In fact, some models show that Central California will be drier and some that it will be wetter (<https://scripps.ucsd.edu/news/8155>). But importantly, most models are forecasting less snow, which translates to less stored water. And most models are also showing that extreme weather will become more and more likely: more huge rain events, more extreme drought periods (<http://ucanr.org/sites/Prepostwildfire/files/3787.pdf>).

In fact, a recent study of the ongoing California drought found that although this drought is primarily a consequence of natural climate variability, global warming has most likely intensified the drought by 15 to 20 percent (<https://www.ldeo.columbia.edu/news-events/warming-climate-deepening-california-drought>). That's a significant increase!

In our gardens then it would be wise to prepare for the weather changes that are sure to come. If we can continue to shift our landscape to plants that can survive the dry periods, then our gardens will be more resilient. Remember, future droughts are not "if," but "when" and "how long?" You are not apt to lose many plants to too much rain, but you certainly can, as we all know, lose plants to drought.

So be smart, water smart and garden smart. Hope for rain, but plan for drought!

Join UCCE Master Gardener Heidi Napier this Saturday to hear about one of the largest and most beautiful plant families in the plant kingdom: orchids. Learn how to successfully grow and care for these wonderful plants; many can be grown in El Dorado County. This free class is from 9:00 a.m. to noon at the Government Center Hearing Room Building C, 2850 Fairlane Court, Placerville.

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Plan to attend the grand opening of the Sherwood Demonstration Garden on Saturday, October 3 from 10 a.m. to 3:00 p.m. Sixteen different gardens will be show-cased along with many special events. The garden is located behind Folsom Lake College – El Dorado Center, 6699 Campus Drive in Placerville.

UCCE Master Gardeners of El Dorado County are available to answer home gardening questions at local farmers markets, and Tuesday through Friday, 9:00 a.m. to noon, by calling (530) 621-5512. Walk-ins are welcome at our office, located at 311 Fair Lane in Placerville. For more information about our public education classes and activities, go to our UCCE Master Gardeners of El Dorado County website at <http://ucanr.edu/edmg>. Sign up to receive our online notices and e-newsletter at <http://ucanr.edu/mgenews/>. You can also find us on Facebook.