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Cannons, Kites and Whirly Gigs:
Desperate times called for desperate measures!
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Even if you aren't an avid gardener you've got to agree that we desperately need rain. This nasty drought has taken away all the fun of creating beautiful yards and gardens. It's gotten so bad that I'm desperate enough to do just about anything to conger up a little rain relief!

Droughts became the bane of our existence the day our ancestors abandoned their hunter/gatherer ways and stuck some seeds in the ground. At that moment we became inescapably dependent upon Mother Nature's fickle finger on the water tap.

And ever since then we've looked for ways to predict and control the weather. Up until the turn of the last century our methods were firmly based on weird science, myths, folklore and idol worship.

Before modern science perhaps the most widely-regarded weather forecasting tool in North America was the "Farmers' Almanac." This annual journal, first published in 1818 ("The Old Farmers' Almanac" was published in 1792) provides weather predictions and detailed recommendations for planting, irrigation and harvests -- sometimes as much as two years in advance!

The "Farmers' Almanac" is extremely secretive about its 200-year old formula for extended weather predictions. Allegedly it involves a recipe of math and astronomy involving sunspots, moon phases, planetary positions and tidal action. And who am I to question these "experts?" I pretty much gave up on math after my seventh grade algebra class!

The "Farmers' Almanac" editors claim their top weather prognosticator sports a track record of being about 80 to 85 percent accurate. But when the journal's predictions are compared with reality, they're about as accurate as random chance. Frankly, if the Almanac is as accurate as it claims, the publisher could earn literally billions of dollars every year by providing the world with highly accurate long term weather information!

One of the more vexing springtime questions for American farmers is wondering when it will be warm and wet enough to plant crops. The few skeptics who choose not to believe the Almanac's hokum might instead rely on the winter shadow of a cat-sized rodent in Gobbler's Knob, Pennsylvania. This is Punxsutawney Phil, the celebrated weather forecasting groundhog. Every

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year in February this buck-toothed fur-ball is ceremoniously ripped from his quiet hibernation hole and held up to the sky.

According to folklore, if Phil sees his shadow there's six more weeks of winter ahead. But, if there's no shadow, spring will come early! Sadly, Phil's gotten it right a little more than a third of the time since 1887. You can probably get better odds in a Tahoe casino!

Not too long ago the United States' economy was deeply rooted in agriculture. Entire communities relied upon the success of their local farmers. During extended droughts everyone worried about the crops. It wasn't uncommon for churches to organize prayer meetings with the faithful pleading for crop-saving rain.

Not coincidentally, it was also during these desperate times that traveling showmen showed up in these troubled communities, chanting tales of hope and salvation: these were the rainmakers! Men who'd take the town's money in exchange for "guaranteed" rain. After a spectacular show marked by fire and smoke, gunfire, sky rockets, wild displays of spinning whirly gigs and plenty of "trade secrets," sometimes the rain would actually fall! But probably not because of the "professor's" valiant efforts! And if the rain never came the rainmaker was typically miles away before the citizens started looking for him.

For decades rainmaking was practiced throughout the United States. By 1890 the subject of artificial rain making had actually attained a level of dignity and respect. The profession reached its peak during the Dust Bowl in the 1930s but tough laws, modern science and better climatology eventually forced the practice "underground."

There were several unusual theories and methods for producing rain; each method as unique and creative as the rainmaker himself. For example, there was one involving a giant kite system that "made electrical connections with the clouds." A Pennsylvania meteorologist suggested making rain by creating large fires, which followed the old maxim that "A very large prairie fire will cause rain."

One fascinating rain-making concept, which actually received a patent in 1880, purportedly stems from the observations of a Confederate general during the Civil War. This is known as the Concussion Theory. It is based on the coincidence that heavy rains often followed extensive cannon battles.

Since that time cloud seeding has evolved from a fringe science to an acceptable, mainstream technology. Modern rainmaking can be traced to 1946 when a GE scientist proved a theory that dry ice dropped into clouds would produce precipitation. A year later silver iodide was found to work in the same way.

To help end our drought cloud, seeding has been attempted, but it has limitations. It only works in certain weather conditions that include cold temperatures, wind direction and the right cloud types. Unfortunately, the last few years our prevailing weather systems have not produced these favorable conditions. This could all change quickly and dramatically, however, if the predictions of an El Nino come true next year!

Throughout recorded history controlling the weather has been high on humankind's list of survival priorities. Thanks to modern science we've come a long way from idolizing rain gods and making sacrifices. But if this drought continues much longer I'm desperate enough to track down a rainmaker on Craig's List and maybe buy a cannon.

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| Water Saving Information |
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To help you with our state's on-going water conservation efforts the UC Master Gardener Program, administered through the University of California, has compiled several helpful tips regarding home gardening and irrigation:

[http://cagardenweb.ucanr.edu/Drought /Drought Gardening Tips /](http://cagardenweb.ucanr.edu/Drought/Drought_Gardening_Tips/).

There is no Master Gardener public education class this Saturday, August 22nd. Master Gardeners 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](tel:5306215512). 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 Master Gardener 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.