Catching the Rain
by Jim Bliss


Jim's rain catching system.

Living and Gardening in the Sierra foothills has brought me a whole new awareness of water. It is an awareness that has developed slowly throughout my life. When we were first married, my wife and I bought farmland in central California hoping to achieve a little independence and grow a lot of our own food. We read every mini farming book we could get out hands on. My first venture was a 200-square foot plot of corn, all dug by hand. Images of free chicken food, cornbread and corn on the cob danced through our heads as we worked. Those thoughts ceased abruptly a month later we got the first electric bill for our well pump.

We were living somewhere very different from the authors of all those self-help books. Where we lived water did not fall freely from the sky, and the electric company exacted a delivery fee. Here in the foothills it is even worse. Wells can be cranky and it doesn't rain throughout the whole long hot summer.

The dream of gardening and independence has not vanished though, so we decided to put in a rainwater tank to supplement the irrigation district. We were lucky enough to get a grant from Tuolumne County to pay for a good portion of it, and the help of *Watershed Progressive* in Groveland to help plan the system and get all of the materials to build it. Make no mistake though, it is a large undertaking.

Where I live, we get about 35 inches of rain in the rainy season. Figure you get around 62 gallons per inch of rain for every 100-square feet of roof from which you collect. I only use half my roof, 800-square feet and, doing the math, that gives me almost 500 gallons for every inch of rain or seventeen thousand gallons a year. The 5,000-gallon tank we put in will only hold a third of that, but even that tank is twelve feet in diameter and seven feet high. It is best if you can place the tank above the level where you will use the water. On my property, that was not possible. There are portions that are about ten feet above the tank, though most of the land can be gravity fed, so I put in a small pressure pump to feed the drip system which provides all my irrigation needs.

The best way to plumb your tank is to feed directly from the gutter into the top of the tank, which is called a dry system. Our tank is sixty feet from the house so we buried a three-inch PVC from the gutter up the side of the tank - a wet system - which has water in it all season long. This was a lot of trench, but we also buried a one-inch line back to the house where the irrigation controls are located.

I wish I could tell you that there is a short payback period on this system, but it would not be true. Our base monthly water rate is about fifty dollars for six thousand gallons. At that rate, it will take decades before I pay the system off. The real payback is conservation. Every time I drive home I see signs asking us to conserve water. For those of us who love to garden that is a wakeup call. Water is inexpensive now but it won't be forever. I remember twenty-five-cent gas and I believe water is headed the same way. Most of the water in our foothill lakes and streams is already owned by the large metropolitan areas of California. This means my tank is an investment in the future of our foothill way of life. It means tomatoes and squash every summer and flowers and fruit to grace our table - a throwback to those long-ago dreams of independence.

Hopefully the rebates, such as the one I used, will come back as the economy recovers. That makes a tank like this a more affordable option. But water conservation is with us to stay in California, and this tank will ensure the life of my backyard orchard and the other gardens that are so much a part of our lives.

If you have any questions that are garden related, call the University of California Master Gardeners hotline at (209) 533-5912, or email us at mgtuolumne@ucdavis.edu. From rainwater tanks to drought-resistant plants we can help you find an answer.

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