

Watering Roses During a Drought

By Daniel Craun

The following article was prompted by the recent drought restrictions enacted in California. However, the same principles could be applied if you just wished to save money on your water bill.

Oh No!

You are a rose lover (or at least an avid fan!) faced with raising roses during mandatory water restrictions, as well as rising water prices. How can you possibly raise great looking roses with limited water? Everyone knows that roses need a lot of water, right? Well, do not despair - all is not lost! Your only option is **NOT** ripping out all your roses and replacing them with succulents!

Face Facts

First off, you need to get clear on a few things to get through this:

- Mandatory water restrictions do not mean no water. It means limited, scheduled and expensive water. Thus, garden watering needs to be planned carefully.
- Roses do not require a lot of water. Rather, they require adequate, regular watering.
- Roses need adequate water at the roots, not on the surface.

Your New Best Friend

Your best friend and most important tool during restricted watering is mulch! Rose growers know that basic rose care at the beginning of the growing year starts with pruning and cleanup. When pruning is completed, usually by the end of February or early March, it is time to mulch. The recommended amount of mulch is 4"- 6" of clean composted mulch applied to all rose beds to renew the soil, minimize weeds and absorb water. It also looks good as a top dressing. However, we know that mulch slowly decomposes into the ground, so the depth of mulch you apply slowly decreases during the year. For water restrictions, we need to maintain a certain mulch depth which does the following:

- Keep water absorption at the max.

- The mulch layer acts as a sun guard to insulate the underlying ground and thus the root layer from drying out too fast. It also lowers the temperature of the soil.
- Mulch is much better at water retention than bare ground. Thus, it will absorb water nearly as fast as you apply it and then slowly release the water to the ground beneath it over time, so it promotes deep watering.

But Wait ... What kind of Mulch?

This is a very important point: use composted mulch! Mulch comes in a variety of flavors, so let's examine each one:

A variety of materials are used as mulch:

- **Organic residues:** grass clippings, leaves, hay, straw, kitchen scraps, comfrey, shredded bark, whole bark nuggets, sawdust, shells, woodchips, shredded newspaper, cardboard, wool, animal manure, etc. Many of these materials also act as a direct composting system, such as the mulched clippings of a mulching lawn mower, or other organics applied as sheet composting.
- **Compost:** fully composted materials should be used. Materials that are free of seeds are ideally used, to prevent weeds introduced by the mulch.
- **Rubber mulch:** made from recycled tire rubber.
- **Plastic mulch:** crops grow through slits or holes in thin plastic sheeting. This method is predominant in large-scale vegetable growing, with millions of acres cultivated under plastic mulch worldwide each year (disposal of plastic mulch is cited as an environmental problem).
- Rock and gravel are not recommended.

In order to create the best benefit for rose growing, composted mulch is best. No tilling needed, just lay the mulch layer on the ground around roses. Do not use raw wood or bark mulches as they contain coarse raw wood, which uses nitrogen from the soil to help decompose. True composted mulch builds the soil and imparts beneficial microbes (that help reduce infestation of unwanted microbes, as the beneficial microbes out-compete unwanted ones) and adds micro-nutrients as well as nitrogen to the soil, continuing to feed the soil. Thus, composted mulch builds the soil that it is covering as it continues to decompose. I recommend the following sources:

Hanson Aggregates: A-1 Soils and Recycle.

- <http://www.a1soils.com/Pages/Home.aspx>
- Serving San Diego and Lakeside – “Queen of Show” Rose Mix or A-1 Lifelike 3/8” Compost are best!

San Diego Landfill:

- <http://www.sandiego.gov/environmental-services/miramar/greenery/mulch.shtml>
- Free for San Diego Residents - just bring containers

Agriservice Inc:

- 3720 Oceanic Way #204, Oceanside, CA 92056
| info@agriserviceinc.com
- Well priced north county resource with reasonable delivery fee if needed.

Watering Schedule

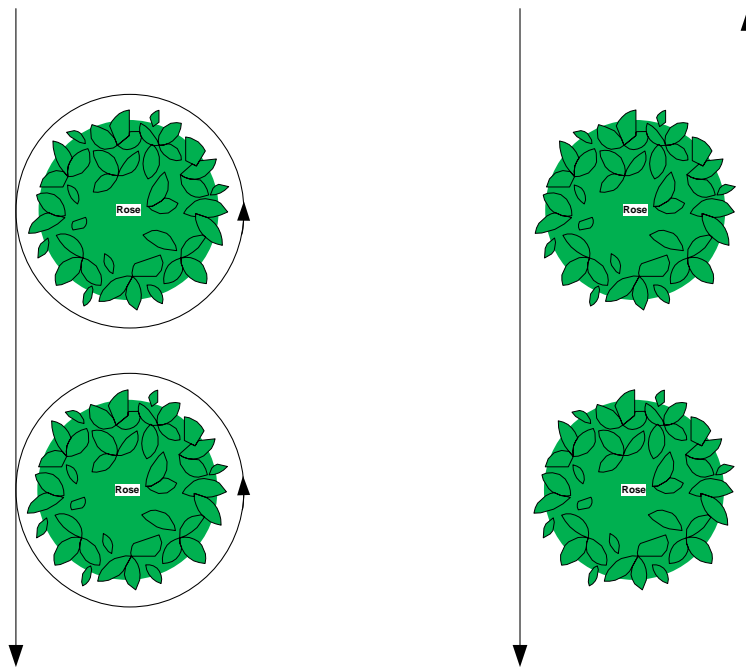
This one is obvious - establish a watering schedule of 2-3 days a week (depending on actual restrictions). Which days will coincide with your local water restrictions. Also, most districts require scheduled watering before 10am or after 4pm, to minimize evaporation, as well as have adequate water pressure. What is not so obvious is how you do the watering:

- Auto: Most everyone has some kind of automatic watering system - Spray or drip. Think about whether your current system is right for your needs, or whether you need to change it. For water conservation, and targeted watering of rose plants, a non-clogging pressure compensating dripline system is the best choice:
 - A good article highlighting all the advantages of drip irrigation: (<http://www.landscapingnetwork.com/sprinklers-systems/drip-irrigation.html>)
 - Irrigation Tutorials: (http://www.dripirrigation.com/drip_irrigation_tutorial)
 - Recommended Irrigation Type: Pressure Compensating Dripline http://www.dripirrigation.com/drip_irrigation_chapters/21/drip_irrigation_pages/66

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- NOTE: The core issue for watering is to get adequate water at the roots. The most efficient and water-wise way to do that is a non-clogging pressure compensating dripline system ~14" radius from the bud union. Alternatively, two parallel drip lines 14" away from each rose (if in a row) as shown:



- Manual: Certainly the most effort (your time is valuable!), but arguably the most efficient watering system around. Hose attachments: Get a sturdy water wand as well as an adjustable, narrow brass nozzle to give you control over the strength and width of the spray. With the water wand, you can more easily place the water where it is needed, and repeated soaking of the mulch at the water line. With the brass nozzle, you can initiate a hard spray of rose foliage weekly during the summer, to clean leaves and as a deterrent to aphids or spider mites. Also, during extreme heat, you may need to add some manual watering time to the automated time (use same schedule).



'Gemini' with morning rain drops - Elaine Ornelas

Potted Roses

Potted roses require some additional care in hot weather, as the roots are in close proximity to the edge of the container, which gets very hot. Thus, watering has to be more frequent. Watering only during scheduled times might not be enough, and watering outside that schedule may be subject to fines. Thus, here are some suggestions:

- **Replant:** Replant at least some of your potted roses in the ground so that roots are more protected. One of my rose grower friends suggests you replace your least-performing roses with the potted roses unless you have some extra room to plant.
- **Move to Shade:** Move the potted roses to some partial shade, preferably shade in afternoon. That will relieve some of the heat burden on the plant. If a really hot day is anticipated, move all potted roses to the shade all day long if possible. NOTE: This is a good time to consider getting some pot rollers (roller platforms for large potted plants) to save your back! (Suggestion: Save some money and get them at >75% off at Estate Sales – you don't care if they are used and dirty!)
- **Pot-in-Pot:** One of the rose growers I know puts his potted roses in plastic pots placed inside ceramic pots to protect them from extreme heat. This is another way to relieve some of the heat burden on the plant.

- **Change Soil:** Typical advice for potted plants is to use potting soil – because it does not compact and stays ‘fluffy’ and loose. However, loose soil is not the best for water retention and for protecting roots from temperature changes. Consider amending potting soil with a combination of ground soil/clay/mulch. This will make the pot much heavier, but might make the difference in keeping this rose alive!

TIPS

We will finish off this article with a list of overall tips to help you make it through this drought:

- **Watering Time:** Pretty obvious, but watering during the day wastes a lot of water due to evaporation, particular in spray systems. Getting water to plants before the sun gets warm allows the water to soak in before it evaporates and promotes deep watering.
- **Get familiar with your sprinkling system:** Most modern sprinkler controllers allow you to put in a rain delay or varying duration. If rain is coming, turn the system off! When water gets really expensive, we all will hate the sight of sprinklers going during the rain! In fact – this might be a fineable offense!
- **Tune your sprinkler system often:** As the season progresses, the water zone duration should be adjusted to compensate for hotter or cooler weather, either up or down. Additionally, no matter what kind of automatic watering system you have, look at it in action periodically. Sprinkler heads clog, filters clog, pressures might change ... Adjust/clean/repair as necessary!
- **Vigilance!** A vigorous, healthy rose is much more heat resistant than a sick one. You will need to pay more attention to prevention of disease (such as fungus) and minimizing insect damage (mites, aphids, caterpillars, etc.) than in previous years. Your reward will be healthier and more beautiful roses, America's favorite flower!
- **Alternate Water Source:** Some friends of mine are planning a rain water system to supplement their city water needs for the garden. This is a very cool way to go - very economical and eco-friendly, as well as water saving! Another suggestion I got from a rose lover was the back-wash from their Koi pond:

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*One of the ways we reuse water is by recycling our koi fish pond back-wash water into the plants and roses located in the backyard upper bank area. Mike built a piping system to disburse the back-wash water. The plants love it because it contains natural fish emulsion. - **Mike and Linda Pellegrino***

- Save water in your home in other ways:
 - No need to flush after every use.
 - Do not leave water running while brushing your teeth.
 - Shorter showers: the best is a "Submarine Shower" where you get wet, turn off water, soap up, then wash off. This saves many gallons each time!
 - Paper plates instead of china (less dishes to wash).
 - When washing dishes, fill a pot or small tub with soapy water to wash the dishes rather than washing under continuous running water.