



Irrigation Basics for the Backyard Garden

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UCCE Master Gardeners of El Dorado County

Water is vital to plant health. When rainfall was either insufficient or absent due to drought, farmers quickly learned that, if they wanted to eat, they had to devise a way to get water to their crops. Irrigation methods have been developed and practiced to do so for thousands of years.

Irrigation is the application of controlled amounts of water to plants at needed intervals. For the backyard gardener there are four methods for getting water to plants: hand watering via a garden hose; flooding, or allowing a large amount of water to flow over the garden surface to wet and infiltrate the soil; overhead watering via sprinkler in one or more locations; and drip or trickle irrigation, in which water is supplied through a system of hoses or pipes and allowed to seep into underground root systems.

While hand-watering is the cheapest and most direct way of irrigation, it can be time-consuming. The drawback to flooding your garden is that water follows the contours of the soil and may pool in unplanted areas. Sprinkler irrigation can be affected by wind, blowing water into areas where it is not needed, thus reducing the amount of water supplied to your plants. Drip irrigation, by far, is the most efficient way of supplying water but it is also the most expensive, as it requires some preplanning of supply hose placement and the purchase of water drip emitters to ensure an adequate supply of water.

No matter which method you use, the idea is to get the right amount of water to your plants. Too little and your plants do not have enough to survive, too much and you wash away soil or drown your plants, a condition which can cause plant disease or destruction of plant roots. In fact, the most common cause of plant loss is either too much or too little water. I have been growing a large vegetable garden for years and have found that setting a regular watering schedule by installing a spring- or battery-powered timer on my water supply line works best.

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Whether you plant in raised beds, containers, or in the ground, it is also important to consider the fact that your garden's water needs will change depending on temperature, humidity, and soil moisture content. Plants in containers may only need watering every other day when the temperatures are in the seventies, every day when the temperature is above ninety degrees, and twice a day when the temperature is in the one-hundreds. Even in your raised beds or garden beds, droughts or high temperatures can result in soil that is too dry, resulting in hydrophobic soil, which is a condition in which the soil repels, rather than absorbs, water. Dry soil, wilting, dry dead-leaf matter, and slow growth are all signs of under-watering.

Your soil's quality can also affect how well it absorbs water. That is why it is important to integrate well-aged compost into your soil and to ensure that the top layer of soil is covered with a mulch to retain water in the soil around your plants.

Finally, timing your watering is also important. Early morning irrigation is good because the temperature is still cool outside, thus reducing evaporation and allowing the water to percolate down into the soil. Late afternoon or early evening are also good times as these also allow for better absorption of the water into the soil.

I hope that these suggestions will help. Happy gardening and may your garden be fruitful!

In response to Coronavirus (COVID-19) California Department of Public Health and El Dorado County Health & Human Services guidelines, all UCCE Central Sierra El Dorado and Amador County Master Gardener public events and classes are cancelled through May 31st, 2020. Check in with us on our website for updated schedules as public health guidelines change.

We realize our public classes are valued by County residents and we especially appreciate your continued support and understanding during this public health challenge. Have a gardening question? Master Gardeners are working hard remotely and can still answer your questions. Leave a message on our office telephone: 530-621-5512, or use the "Ask a Master Gardener" option on our website: mgeldorado.ucanr.edu. We'll get back to you! Master Gardeners are also on Facebook, Instagram, and Pinterest.

Stay safe and follow recommended health and sanitation practices in the coming weeks.

For more information on the UCCE Master Gardeners of El Dorado County, see our website at <http://mgeldorado.ucanr.edu>. If you are looking for garden inspiration, while our garden is closed due to COVID-19, our website has pictures, plants lists and much more. http://mgeldorado.ucanr.edu/Demonstration_Garden. To sign up for notices and newsletters, see http://ucanr.edu/master_gardener_e-news.

*Erratum: In April 8th's article (BRINGING NATURE HOME), the premise is correct that attracting native birds and insects is dependent upon planting natives. The article's error, in a summary paragraph, is in listing plants not native to El Dorado County, with the exception of *Quercus kelloggii*, the California black oak. To find plants that actually are native to our County, check the website Calflora.org, under the What Grows Here tab (using the map). Natives like those in your garden will nurture County native insects and birds. We*

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apologize for any confusion. It is the Master Gardener goal to bring you only correct home gardening information.