



### **WATER-SAVING DRIP IRRIGATION**

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It is doubtful that anyone living in El Dorado County, or the whole of California for that matter, is not aware of the serious drought conditions impacting everything from household water use, home gardening, commercial agriculture, new home construction, etc. The list is a long one. We all need to do our part to help conserve what water is available, and this article, I hope, will help sway home gardeners to switch to drip irrigation for their landscapes.

Very crude drip systems were used in ancient times, but the Israelis are credited with developing the modern concept of drip irrigation because of the need to grow food crops in their dry, desert country. Drip irrigating expanded through the decades to enable farmers, nurserymen and home gardeners to more efficiently use water to grow everything from crops to ornamentals. This is primarily because drip irrigation technology applies water slowly and directly to the targeted plant's root zone. Another bonus is that oddly-shaped areas or hilly terrains are much better irrigated with drip systems than overhead sprinklers,

Drip irrigation involves placing tubing with appropriately spaced emitters on the ground alongside the plants, and the emitters slowly drip water into the soil at the root zone. Irrigating using this method has many benefits:

- Minimizes diseases due to water not contacting leaves and stems.
- Reduces weed growth in dry rows between plants.
- Increases effective watering on uneven ground.
- Reduces leaching of water and nutrients below the root zone.

Initially setting up a drip irrigation system is time intensive, but once it is done, the only maintenance necessary is periodically checking to see that emitters are functioning properly and not clogged; many gardeners walk around their landscapes on a weekly basis to see that everything is working properly. Newer tubing is much better than in the past and does not

deteriorate as quickly when exposed to sun. It can be covered with mulch if the appearance on top of the ground is not appealing, but one word of caution -- it is a good idea to take a picture of a system once it is installed and before covering with mulch. This lessens the chance of cutting into it with a shovel or other garden tool.

In recent years, in-line drip irrigation has become available. This innovation precludes having to punch into lines to insert emitters because they are already installed inside the drip tubing. Manufacturers claim that this type of system does not become clogged with dirt or insects and is much better adapted to being covered with soil or mulch. Spacing of the built-in emitters is usually every nine or twelve inches and can be used in straight rows, as in vegetable beds, or wound around a landscape in various patterns.

Now, what about turf areas? Unfortunately, these do not lend themselves well to drip irrigation due to the large expanse of roots that need to be watered. Ideally, and especially in this time of drought conditions, lawns should be removed or at the very least, reduced drastically in size. If a gardener must have a small turf area, overhead sprinkler heads can be replaced with MP rotator heads. Rather than simply spray water onto landscapes, these deliver multiple streams of water at a steady rate. MP rotators can be installed onto any conventional spray head body or shrub adapter.

Everyone needs to do their part for water conservation and in the garden; utilizing drip irrigation is a big step toward helping reduce water use.

Learn the basics of drip irrigation and home sprinkler systems at this Saturday's free Master Gardener public class, Irrigation. Master Gardeners Debbie Hillel and Bob Sherwood will show gardeners how to preserve our water resources, protect their investment in plants and landscaping, and reduce water bills. The April 12<sup>th</sup> three-hour class starts at 9:00 a.m. in the Veterans Memorial Building, 130 Placerville Drive, Placerville.

Save the date: the 5th annual Master Gardener spring plant sale is on April 19, 2014 in the Veterans Memorial Building Parking lot, 8a.m. until 3 p.m. Heirloom tomatoes and wondrous variety of garden vegetables will be featured, along with perennials, trees, shrubs, and groundcovers that do well in our foothills climate. Plants that are considered water-wise will be prominently pointed out.

Master Gardeners are available to answer home gardening questions 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/sites/EDC\\_Master\\_Gardeners/](http://ucanr.edu/sites/EDC_Master_Gardeners/). Sign up to receive our online notices and e-newsletter at <http://ucanr.edu/mgenews/>. You can also find us on Facebook.