

NEWS RELEASE  
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## DRIP IRRIGATING HOME GARDENS

### BACKYARD HORTICULTURE

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Watering your garden is the most important, but tedious, part of growing your own vegetables and ornamentals. With the special challenges of soils in Mariposa County, sprinkling, flooding, or furrow irrigating may be taking too much time. An alternative is to apply water slowly near the plants, thus eliminating the weekly task of setting up hoses and sprinklers. This slow, deep application is called drip, or trickle, irrigation.

Drip irrigating has several advantages, including using less water to grow your plants. Some figures given by manufacturers indicate water savings as high as 75 percent are possible. Although drip irrigation does expose less surface area to evaporation, actual water savings probably amount to 5 to 20 percent over surface irrigation. Your labor will be cut too, as most systems are at least for the duration of the growing season. It also cuts down on weeds, as a much smaller area of the soil is wetted.

As the space between rows is drier than with conventional watering methods, access to your plants for pruning, pest control, and harvest is improved. You can even apply fertilizer directly into some systems, which makes getting the nutrients to your plants easier and more efficient.

There are some problems with drip, or trickle, irrigation for the home gardener. One is the initial cost. Kits are available costing from \$15 to \$30 for 25 to 50 feet of drip tube. Water and labor savings should offset this, however. Another problem can arise if you have clay or compacted soil in your garden, as is common in our area. If water is applied too fast with drip

systems, it sometimes will not be absorbed by the soil and can cause runoff or ponding. A slower application rate can help solve this problem.

An important requirement of any type of water management system is to get the water down to the normal rooting depth. Drip irrigation is especially suited for this deep watering. Most common garden crops, including tomatoes, beans, peas, and potatoes do best if 18 to 24 inches of soil is moistened at each irrigation. These deep root systems are necessary to supply the plants with the large amounts of water used. This water is mostly lost through the leaves and soil directly and is called evapotranspiration. For tomatoes this is about 25 inches per season. To replace this water in a small garden, 10 x 10 feet, would take about 1,500 gallons. For only the month of July in Mariposa County, tomatoes in a 10 x 10 foot garden could need over 200 gallons of water. A drip system of irrigation could obviously make this application easier.

Assuming you decide to install a drip irrigation system for the home garden, you should then consider which of the various types is best for you. One variety consists of a porous plastic or rubber tube that allows water through minute pores in the wall. The flow is then along the entire length of the tubing.

The other major type of drip system is a long tube run the length of your garden row. From this, small leader tubes extend and are placed near each individual plant. Some of these leader tubes just trickle water out the end; others have a small fan-shaped spray.

For other water conservation ideas, call the UCCE office in Mariposa and ask for the free leaflet #8036.

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