

# DRIP IRRIGATION AIDS CONSERVATION



An array of water-conserving irrigation systems often lumped under the heading of “drip irrigation,” are now available at landscape, gardening, and plumbing stores. These range from porous hoses that attach to a regular garden hose, to automated systems that incorporate programmable timers to water individual beds or plants on a preset sequence. The idea behind any drip irrigation system is to conserve water by directing it to the base of the plants, where it’s most needed. By keeping the foliage dry, drip irrigation also helps control mildew and fungus problems, as well as limiting weed growth.

Although they ultimately save water, drip irrigation systems have to be used more frequently than overhead systems. Because water from a drip system doesn’t fill the entire root zone, the roots are localized around that wet zone and you must maintain higher levels of moisture in that zone.

Drip irrigation is especially useful for plants that are sensitive to moisture-related diseases, such as cucumbers, squashes, potatoes, and many annual flowers. For densely planted beds of lettuce, carrots, beets, and other small plants, overhead watering with high-quality oscillating sprinklers remains the best option.

Another simple drip system uses a porous “soaker hose” made from shredded rubber that attaches to a regular garden hose. The leaky hose is laid along the length of the bed, or wrapped around trees or other perennial plantings.

Trees and perennials can also be watered with micro-sprinklers, small permanent spray heads that attach to narrow “spaghetti lines” fed by larger irrigation pipes. These systems not only save water, but save the hassle of moving hoses and sprinklers every time you need to irrigate. Trees should be watered in an area that extends from just inside the tree’s dripline to about five feet beyond the widest limbs, where most of the feeder roots lie (note the shadow cast by a tree’s foliage at midday— the shadow’s outside edge marks the tree’s dripline).

Produced by the Center for Agroecology and Sustainable Food Systems at UC Santa Cruz. For more information about Center resources and activities, call 831/459-3240 or write CASFS, University of California, Santa Cruz, CA 95064.