DRIP IRRIGATION GLOSSARY

Basic Concepts	***Definition***	***Also Known As (AKA)***	***Source of Definition***
drip irrigation	• Frequent, slow application of water to soil through emitters that carry water to each plant • Three parts of a basic drip system: a control head, including a flow control, pressure regulator, and filter; a transmission system of flexible plastic pipes or hose; emitters	micro-irrigation	DIHL 1 CMGH 91-92
evapotranspiration (ET)	A term combining *evaporation*, a plant's loss of water at the soil surface, and *transpiration*, loss of water at leaf surfaces through stomates, and often referred to as the water use of a plant		CMGH 85
reference ET rates	Values used by scientists and growers to estimate and compare water use among plant species; the values reflect the average daily water use by 4-inch tall cool-season turfgrass when soil water is unlimited	ET_o	CMGH 85-86
hydrozone	• An irrigation zone watered by the same valve and controller station • Plants with similar water needs should be on a similar watering schedule and planted in the same hydrozone		CMGH 93
Model Water Efficient Landscape Ordinance	The basis for California's urban irrigation regulations, the MWELO is intended to promote landscape practices leading to efficient water use and conservation.	MWELO	http://www.water.ca.gov/wateruseefficiency/landscapeordinance/
Water Use Classification of Landscape Species (WUCOLS)	A resource developed through the collaboration of landscape professionals and water authority representatives with the support of the California Department of Water Resources. The information provides guidance regarding the water needs of landscape species. Water agencies and local authorities may opt to use WUCOLS evaluations to help meet conservation goals.	WUCOLS	http://ucanr.edu/sites/WUCOLS

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Drip System Component	***Function***	***Also Known As (AKA)***
adapters	Devices used to connect different sizes of drip tubing	
air relief valve	Device for bleeding air out of the system	
anti-siphon valve	Device preventing backflow of water from the drip system to the main water source, may be built into the control valve	
control valve	• Device used to turn parts of the irrigation system on and off • Automatic control valves are fitted with a solenoid that opens and closes the valve in response to signals from a controller • Anti-siphon valves are often built into the control valve	jartop
controller	• Device regulating operation of the irrigation system by sending an electrical signal to the solenoid on the control valve • Controllers are programed to set irrigation start and run times and the days of irrigation	
delivery pipeline	• As a main water delivery pipeline, moves water from the source through the transmission system to hydrozones in the landscape • May be made of galvanized, polyethylene, or polyvinyl chloride (PVC) pipe	
drip tubing	• Part of the transmission system of flexible plastic pipes or hose (usually polyethylene tubing) used to deliver water directly to the roots of plants via emitters or microsprinklers placed into the tubing along points corresponding with plant placement • Tubing size can be 0.670 (16 mm), 0.700 (18 mm), 0.900 ( ) or 1/4”	poly tubing
emitter	• Placed where a drip tubing point corresponds with plant placement, a delivery device at the final exit point where the water moves into the soil • Available in various flow rates: e.g., 0.5, 1, 2, & 4 gallons per hour	drip emitters
end closure	Device to close off the end of a piece of drip tubing	
filter	• Device for removing particles (e.g., sand) contained in the water source • May be screen filters or disk filters and should be routinely checked and maintained	
fittings	Devices used to connect drip tubing, e.g., elbow connectors	
flow rate	Amount of water that moves through pipes, measured in either gallons per hour (gph) or gallons per minute (gpm). Drip emitters have designated output rates which are measured in gpm or gph. Calculate amount emitters require in each hydrozone, do not exceed emitters’ available gpm or gph. Flow rate is not as critical in drip irrigation because much less water is distributed.	

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Drip System Component	***Function***	***Also Known As (AKA)***
flush valve	Device installed as part of the delivery tubing and used to clean out the drip system	end closures
goof plug	Device used to close up holes previously made in the drip tubing	
hose bib	Faucet which can be the water source for the drip irrigation system	
inline emitter tubing	Tubing in which the emitters are embedded	
manifold	The array of control valves	
microsprinkler	• Delivery device at the final exit point where the water moves into the soil • Applies water over a greater area than does a drip emitter	
pressure compensating emitter	Drip emitter which responds to changes in pressure by using a self-adjusting orifice to maintain a constant discharge across a range of operating pressures; useful where the pressure in a system changes, e.g., in landscape with significant elevation changes	
pressure regulator	• Device for assuring operation of the system at the appropriate pressure by reducing pressure • Can be preset or adjustable	
retrofit fittings	• Used to convert a sprinkler system to a drip system • May be run off a valve or the header connecting to the lawn sprinkler	retrofit kit, retrofit system
shutoff valve shutoff valve (continued)	• Gate-type shut-off valve placed upstream of all other drip components to allow manual shut off of water to the entire drip system • Should be installed in climates where the system should be drained in the winter to prevent damage from freezing.	
timer	See controller	

Full Titles of Information Sources

- *California Master Gardener Handbook*. 2nd ed. Ed. Dennis R. Pettinger. Richmond CA: University of California Division of Agriculture and Natural Resources, 2015. Print.
- Schwankl, Larry and Terry Prichard. *Drip Irrigation in the Home Landscape*. Richmond CA: University of California Division of Agriculture and Natural Resources, 1999. Print.
- WUCOLS IV Project. http://ucanr.edu/sites/WUCOLS accessed on March 2, 2016.

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