

Drip Irrigation Installation and Maintenance

Last month we discussed planning a drip irrigation system for your home garden. It's now time to put that plan into action to decrease your summer work. A simple home garden irrigation design is inexpensive and relatively easy to install. Water is measured in gallons per hour (GPH). The zones in a drip system enable you to deliver the amount of water needed to a specific area for a specific time, providing optimum moisture to the plants. Each zone will require a timer (if using), a back flow device, filter, pressure regulator and hose adapter. From the hose adapter, other components easily snap together.

At the main water source, connect controller (manual or automatic). Route $\frac{1}{2}$ " poly-tubing distribution line from the main water source to the area to be watered for each zone. Snap the distribution line into the adapter at the water source. Secure the distribution line with ground stakes to keep from moving. Once the distribution line is in place, $\frac{1}{4}$ " feeder lines snap onto barbed fittings that pierce into the main distribution line. A variety of fittings enable you to route feeder branches to individual plants or pots; continuous emitter lines also snap onto barbed fittings and snake through denser plantings. Emitters snap into the end of feeder lines and are chosen for the specific plant or area to be watered. (They generally deliver between 0.5 and 2 GPH). Leave the end of the distribution line open so that you can flush the line when you have completed installation to flush out any debris. Once the system is flushed, close off the end of the tubing. Cover exposed tubing with mulch if desired.

The system should be monitored regularly. Lines break (or are inadvertently cut), pull away from the fittings and emitters, or plug. Listen and look for leaks. Check your plants for signs of too little or too much water. Basic repairs include repairing leaks and either unclogging or replacing clogged emitters. Filters need to be cleaned each year if using city water, but more frequently if using well or pond water. Have a tool kit assembled such as a tackle box, which includes cutting pliers, regular pliers, hole punch for $\frac{1}{2}$ " poly tubing, scissors, feeder tubing, assortment of connectors, selection of emitters and goof plugs. Having a selection of Maintenance supplies available in one location makes the repair job relatively quick and easy. At the end of the growing season, flush the system, drain and winterize the system to include storing the controller to prevent freezing.

As your garden grows and changes, you will need to change your drip system accordingly. With inexpensive tubing and a selection of emitters, it is a relatively simple task to update your system to meet your garden's needs. With your new drip irrigation system in place, you will have more time to enjoy the garden. Happy growing!

Resource: OSU Fact Sheet [BAE-1511](#)