

Garden & Landscape Design Department

Simple Hose Bib Irrigation Systems (by Christina Reeves)

Watering is essential to the growth and survival of your new plantings, but hand watering is one of the most time consuming aspects of garden maintenance. As most homeowners are not looking to be slaves to their yards, some type of irrigation system should be put in place to help insure the success of your planting investment. Traditional in ground irrigation systems can be worry-free but they may require an investment of upward of thousands of dollars. For smaller planting beds, a simple hose bib drip irrigation system can be utilized to help homeowners keep their plants watered, without a plumber, and at a more modest price point. Handy homeowners will be able to layout and install a simple hose bib drip irrigation system themselves, but Gasper Landscapes, Inc. can also give quotes for installation.

Drip irrigation is a very efficient method to water. It saves water because it applies water directly to the root zone around each plant, eliminates overspray, and reduces evaporation. Drip irrigation also keeps water off of plant's foliage, a condition that can contribute to fungal diseases and leaves being 'burned' by water droplets acting as magnify glasses. Unlike soaker hoses, the ½" poly tubing used in simple drip irrigation systems are clog resistant and can water evenly at distances up to 300ft. Also drip irrigation can be installed without digging. Tubing is laid directly on the topsoil under the layer of mulch.

The first requirement of a simple hose bib irrigation system is an active hose bib or faucet in an ideal location. A hose bib is an outdoor water faucet that protrudes from the house at about sill height and is threaded to accept a hose connection. An ideal location would be in the general proximity of the planting beds to be irrigated, not surrounded on all sides by hardscape and high enough on the exterior wall to have enough space between the bib and the ground to accommodate the 'Y' splitter, the timer and the pressure regulator (about 18-24"). If an active hose bib is not available, a plumber can be hired to install a new bib or to relocate a poorly located existing bib.

Garden & Landscape Design Department

Simple Hose Bib Irrigation Systems (Continued)

Next a brass ‘Y’ splitter will be attached to the hose bib. Teflon thread seal tape can be used on the bib threads to ensure a tight fit that does not leak. The splitter should have a 2-way shut off so that the homeowner can make use of the second connection without disturbing the irrigation set-up.

Connected to the ‘Y’ splitter is the digital timer. The timer acts as a shut off valve and regulates at what time and for how long the system will run. Because the timer controls the flow of water, the hose bib will need to remain open while the irrigation system is running. The digital timers are the only part of the simple hose bib irrigation system that CANNOT remain outside in freezing temperatures because the timer will be damaged. It is IMPORTANT that timers are taken inside and stored in an area whose temperature will stay above freezing. We recommend taking your timer in right after Halloween or at any issued fall frost warning. Most digital timers operate utilizing batteries and one set of batteries should last the whole season. It is easy to replace batteries each spring during system start up. See each timer’s manual for specific set up instructions.

Attached to the timer is the pressure regulator. The pressure regulators contain a backflow preventer that prevents any water from the irrigation system backing up into the house water supply. It also ensures full and even flow throughout the poly tubing. Again, Teflon thread seal tape can be used on the connection threads to ensure a tight fit that does not leak.

Solid ½” poly tubing will be run from the pressure regulator to the area to be irrigated. The solid tubing will be buried in a slit trench below the surface of the yard. Perforated tubing with holes every 12” will be cut to size and installed adjacent to the existing and proposed shrubs. Tubing is joined together with simple plastic fittings and couplings. Tubing should be spaced 18-24” apart in most landscaped areas. Tubing is anchored with galvanized stakes and covered with a layer of stone or wood mulch. Tubing does not need to be shut down for the winter or blown out like traditional in-ground irrigation systems, because water does not remain in the perforated pipe when not in use.

Garden & Landscape Design Department

Simple Hose Bib Irrigation Systems (Continued)

A simple hose bib drip irrigation system is intended to make watering easier for the homeowner, but still requires constant monitoring to be certain the proper amount of water is getting to the plantings. Newly planted large trees and shrubs may require additional hand watering. The timer should be turned off or put on rain delay during periods of extended regular rain. This irrigation system also must be monitored and adjusted as the plant material becomes established and as the seasons change.

We recommend the following water time guidelines:

- 1-2x per week for 20 minutes during Cool Weather (Early Spring/Fall)
- 2-3x per Week for 20-30 minutes during Mild Weather (Late Spring/Early Summer)
- 3-4x per Week for 30-40 minutes during Hot Weather (Summer Months/Drought conditions)

After a couple of days it is important to look at the soil near your drip tubing to evaluate your water times. If the soil is too wet; reduce watering frequency and/or time. If the soil is too dry; increase watering frequency and/or time. Reevaluate soil conditions after each adjustment.

Although there are soil moisture meters that are available for purchase in the nursery, the best way to check if it is time to water is pretty low-tech and hopefully always with you... your finger! Simply pull back the mulch in an area around the base of a plant and insert your finger into the soil. If the soil is too dry, it will be hard to push your finger in, feel dry and dusty and leave a dry dust on your finger. This means it is time to water! If the soil feels soupy, mushy or muddy and coats your finger with mud, the soil is too saturated and it is a good idea to delay watering for a few days to allow the soil to dry out a bit. When soils are too wet, it is a good idea to test again in a few days, before watering. Ideal moisture levels, will feel somewhere in the middle, damp and slightly spongy...kind of like a brownie or piece of chocolate cake! And similar to testing the doneness of a cake with a toothpick, soil at the right moisture level, shouldn't leave too much soil on your testing finger.

Another way to gage if your plants need water is a visual assessment of the plant's leaves. It is typical for plants that are feeling water stress to droop and start to shrivel. Dry, brown or crispy leaves are usually a sign of severe water stress. Alternatively, yellowing of leaves, particularly for broad leaf evergreens like hollies and boxwood, can be an indication of too much water.