

# Garden Hoses

- **Diameter of the Hose**

A standard garden hose is available in hose sizes of 1/2, 5/8 and 3/4 inch. The measure indicates the interior diameter of the hose. The smaller the diameter, the fewer gallons per minute can pass through it, limiting the amount of water that you can apply to the garden during a given time.

- **Water Pressure**

The pressure in your water supply is also a factor in the flow rate of a garden hose. Measured in pounds per square inch, or psi, the water pressure determines how quickly the water pushes through the hose. While water pressure from the house could vary from 40 to 60 psi, water pressure from the city's water main might be 80 psi or more, requiring a pressure regulator to protect your plumbing.

- **Length of the Hose**

Garden hoses are readily available in 25-, 50-, 75- and 100-foot lengths. As the hose gets longer, the flow rate of the hose drops. A 25-foot, 1/2-inch diameter hose attached to a faucet that supplies water at 40 psi has a flow rate of 24 gallons per minute, while a 100-foot hose only has a flow rate of 6 gallons per minute.

- **Estimating Flow Rate**

Because of the various factors that must be included in estimating the flow rate from your garden hose, it is difficult to determine the amount of water you are supplying to your garden. A simple method of measuring water flow is to use a 5-gallon bucket and a watch. Turn the faucet on and place the hose's end in the bucket. Keep track of how much time it takes for the bucket to fill up. If it takes five minutes to fill the bucket with 5 gallons of water, then you know that the flow rate is 1 gallon per minute.

## Sprinkler Systems and Water Usage

- **Calculating Inches per Hour**

Set out six to 10 identical, straight-sided containers; the University of California recommends things like clean, empty tuna cans. Run the sprinklers for 15 to 20 minutes, noting the exact length of time. Measure how much water fell into each can; average those figures and multiply by 4 if you ran the sprinklers for 15 minutes or 3 if you ran them for 20 minutes, to get inches per hour. Note that this does not include evaporation, so do this test when you normally water.

### Running a Sprinkler from a Standard Garden Hose

Running a typical **sprinkler** from a standard garden hose (5/8") for one hour **uses** about 1,020 gallons of **water**, if you run it three times per week, which is about 12,240 gallons per month. If you run the **sprinkler** three times a week during a 90-day billing cycle, you will add about 36,000 gallons of **water** to your usage