



Small Thinking for Smart Landscaping

Putting the right amount of water only at the right places.

Micro-irrigation, also known as low-volume or drip irrigation, provides a way to establish and maintain landscape plantings while saving water. It is an irrigation method using low pressure plastic tubing, fittings and emitters (where the water comes out) to apply water precisely to thirsty plants. Areas between landscape plants are left dry, thus saving water. Although not recommended for lawns, water waste, weeds and runoff are reduced in beds of shrubs, flowers, trees and in vegetable gardens. Plants in containers, baskets, on patios and around pools also work well with micro-irrigation.

Benefits of Micro-irrigation:

- Puts water only where needed.
- Can reduce landscape water use by 10 to 25 percent.
- Easy to install, flexibility for change. Installs on ground surface and can be covered with mulch.
- Connect to faucet, hose or automatic lawn system.
- Easily complies with water restrictions.

3 Types of Micro-irrigation:

1. Micro-Sprayers

- Wets a larger surface area like a flower bed or a group of shrubs.
- Interchangeable emitters for different spray patterns.
- Emitter is at the top of a stake or riser.
- Easier to see it operating.
- Wets foliage and is more subject to evaporation losses.





2. Drippers

- For widely spaced plants or containers.
- Water drips out on soil surface.
- Very precise, controlled application.
- Available in ½ to 24 gallons per hour flow rates for plants of various sizes.
- Mostly out of sight under mulch.

3. Drip Tubing

- For hedge rows or can be looped or installed in grid pattern.
- Makes a row(s) of wet circles.
- Performs like drippers but drippers are factory installed inside tubing.
- No loose parts or pieces to plug in.
- Can be out of sight under mulch.



Installation and Operation Tips:

- Hydrozoning, watering landscape plantings separate from grass, creates an ideal opportunity for using micro-irrigation in the landscaped areas.
- Careful design and management are necessary to save water. The water needs of various size and type plants within a watering zone are balanced by using a mix of emitter types, flow rates and/or spacing.
- Check often for leaks, clogged or missing emitters. Letting the water run too long is a frequent oversight. Water filters, pressure reducers and small automatic timers are available to alleviate some of these problems.
- Monitor the plants for signs of over- or under-watering; adjust emitters and the watering schedule as needed. Micro-irrigation systems usually need to operate more often than conventional lawn sprinklers.

For more information about water conserving landscapes and irrigation or free classes contact the writer at Manatee County Extension Service, 1303 17th Street W., Palmetto, FL 34221. Phone (941) 722-4524, E-mail: jtichenor@ifas.ufl.edu, or Web site: <http://manatee.ifas.ufl.edu>, click on "water conservation".

This fact sheet was adapted by Jack Tichenor, Extension Agent, on Nov. 17, 2010 in part from a brochure "A Guide to the Basics of Micro-Irrigation" developed by Tampa Bay Water and printed by The Southwest Florida Water Management District, Brooksville, FL