

FACT SHEET: Retrofitting an In-ground Irrigation System into Microirrigation

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(Adapted from Retrofit presentations by Jack Tichenor, Extension Agent, Manatee County Extension and Maria Carver, Water-Wise Program Coordinator, Hillsborough County Extension)

Retrofitting is the process of converting your traditional in-ground irrigation to a microirrigation (low volume) system. Low volume is defined as 30 gallons per hour (gph) or less. In-ground systems emit landscape irrigation in gallons per minute (gpm). Retrofitting is environmentally-friendly because it conserves water. However, retrofit microirrigation cannot be used on turfgrass zones. Retrofitting involves the conversion of entire irrigation zones. Partial conversion of an irrigation zone is not recommended. In-ground irrigation sprinkler heads can easily be replaced with a retrofit assembly.

Retrofit Installation Procedures:

- Locate sprayer head or rotor in the landscape bed
- Dig out existing pop-up sprayer or rotor head. Flush out the system. Note: When you turn the water on, the hole surrounding the existing pop-up sprayer or rotor will flood and can cause soil to enter the system and delay retrofitting progress.

One outlet option: Replace sprayer with adapter elbow or tee, install multi-outlet device, sprayer adapter or cap off sprayer if not needed. Install distribution tubing on fitting and install throughout landscape bed.

Multiple outlet option: Insert multi-outlet on poly riser or insert sprayer retro-kit. Run spaghetti tubing from multi-outlet to plant and install a selected emitter from the variety available.

Water filters may be needed to remove particles and minimize clogging potential. The easiest water source to convert is municipal, and additional filters may not necessary but are recommended. Converting from a reclaimed water source is easy, and additional filters are recommended. Depending on the presence or absence of a pressure tank, conversion from a well water source can be easy or difficult. Pressure regulators are important because they reduce incoming water pressure to help prevent the rupture of plastic tubing and fittings and provide usable pressure ranges for emitters, especially drip.

Retrofit System Maintenance:

- Periodically check for clogged emitters
- Regularly clean filters
- Flush lines when possible
- Check for broken lines or missing emitters
- Check spray patterns to make sure they are not blocked by plants
- Adjust run times seasonally and as plants become established
- Add or remove emitters according to plant needs

Retrofitting - another environmentally-friendly concept that conserves water.

For additional information on Extension Retrofitting workshops, view our Calendar of Garden Workshops at: <http://hillsborough.extension.ufl.edu/HomeGardening/event-calendar.html>