

Save Water During Shrub Establishment

The logo for 'Turf' features the word in a bold, black, sans-serif font. A green grass blade is integrated into the letter 'u'.The logo for 'Tree Services' is in a bold, black, sans-serif font. A small green leaf is positioned above the 'e' in 'Services'. Below the main text is the tagline 'Taking Tree Care to New Heights' in a smaller, italicized font.The logo for 'DesignBuild' features the word 'Design' in black and 'Build' in orange, both in a bold, sans-serif font. A small orange square is positioned above the 'i' in 'Design'.The logo for 'PLOW' is in a bold, blue, sans-serif font. The letters are slightly slanted to the right.

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By Ron Hall

Installing and maintaining woody ornamentals (shrubs) is a popular and profitable green industry service. Many of you landscape pros provide it as part of your landscape design offerings or, perhaps, as an enhancement to your mowing/maintenance contracts.

Even so, you realize there's always the risk of plant failures, something you definitely want to avoid if you can. Failures are expensive.

Do you offer your clients free plant replacements during the first year of establishment? Callbacks caused by dying or weakly performing woodies are profit and time killers. Consider also the expense incurred in sourcing and buying replacement shrubs.

There are, of course, many reasons why woodies die or struggle due to mistakes made during establishment, but one of the most common is poor watering practices during their critical 20-to-28-week establishment period.

Complicating the picture, at least for contractors or nursery retailers who offer free one-year plant replacements, is the fact that property owners are usually in charge of keeping their new shrubs watered. And that's whether they have irrigation systems or not.

Customer Education Is Vital



University of Florida
horticulture professor Ed Gilman
poses at the Landscape Teaching
Lab near the university's main
campus in Gainesville, FL.

For this reason, it's always a good idea to give your customers easy-to-follow watering instructions for getting their new shrubs off to a strong start. Perhaps you can start that conversation by reminding them of how they'll be saving water, which is a cost to them.

"Horticulturists have observed that many landscapes with installed irrigation are overwatered. This is wasted water," says Edward "Ed" Gilman (pictured here), a horticulture professor at the University of Florida IFAS.

With water conservation in mind, Gilman and his university collaborators set out to determine the minimum irrigation needs for recently planted, commonly grown shrubs.

"We had conducted similar studies for recently planted trees but there was little to guide irrigation of shrubs," he tells *Turf* magazine.

Less Water, More Frequent Irrigation

"We finally have our irrigation recommendations for establishing shrubs backed up with science. We need less irrigation than many people think," Gilman continues.

Gilman's five-year study focused on the survival and growth rates of three-gallon, container-grown shrubs in four different regions of Florida. Not surprisingly, plants needed more frequent watering during establishment in the warmer regions of the state, or during dry periods.

However, whether native or non-native, the study revealed that applying less water frequently resulted in stronger, more attractive plants compared to irrigating with large volumes of water infrequently. Equally telling, the study indicated that there was "no difference between native and non-native species for the amount of water required for establishment," claims Gilman.

"Recently planted shrubs need irrigation primarily on top of the root ball because that is where the roots are located. Irrigation applied to the soil surrounding the root ball mostly goes unused and wastes water because there are no roots there," says Gilman.

"Some water moves from the root ball into the surrounding soil allowing roots to grow there and become established. In dry climates, occasionally adding water to the surrounding soil in the dry season may help shrubs become established."

Even after successful establishment, shrubs will need supplementary irrigation during extended dry spells and heat. This is especially true of woodies growing in light soils rather than clay, which is slower to allow penetration but also dries out much more slowly.

Simple Steps To Establishment Success

Gilman shares these simple steps to boost your shrubs' vigor and growth during establishment:

- Consider planting at the start of the rainy season.
- Maintain irrigation until shrubs survive on rainfall alone, once roots have grown to the edge of the foliage canopy, usually within 28 weeks of planting.
- Irrigate based on location, weather and desired plant vigor.
- Apply water directly to the root ball.
- Use low-volume irrigation. Don't irrigate if a quarter-inch or more rain fell in the last 24 hours.
- After establishment, irrigate when there are signs of wilting, but before leaves begin to die.

Since the University of Florida study focused on shrubs commonly found in that state, Gilman says he's hopeful researchers will conduct similar studies elsewhere within the United States to validate his findings.

Hall has worked in the lawn and landscape industry as an editor, researcher and writer for more than 30 years.