

Water, rest, water, save: Experts advise cycle-soak watering of lawns

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A typical landscaped yard consists of lawn area and ornamental plants. If watered properly, homeowners can see the beauty, pocket some green and save some water, according to a Texas A&M University turfgrass professor.

Supplemental watering of urban lawns and landscaped areas is required to keep the plants healthy through the typical long, hot and dry summers and falls in Texas, according to Dr. Richard White, Texas AgriLife Research turfgrass management scientist in College Station.

White discussed different studies during the annual turf and landscape field day held recently at Texas A&M for turfgrass professionals and homeowners. Results homeowners can take to their lawns the fastest are the ones coming from the new surface [water](#) runoff facility built specifically to look at issues associated with water conservation, irrigation scheduling and water quality preservation, he said.

The facility includes 24 individual turf plots, each with separate irrigation systems, flow meters to measure the quantity of water applied and actually running off the plots, and automated samplers that collect runoff water for laboratory study, he said.

"Our runoff water testing can measure concentrations of nitrogen or phosphorus and other things that have the potential to impair surface waters," White said. "We have the capacity to measure things such as fecal coliforms that might come off a residential lot that has numerous

pets.

"This provides us a better idea on how to translate that information to homeowners or turf professionals about how they can do a better job with water application and water management."

What the researchers have found early on is that the method used to apply water makes a great difference in conserving water and keeping the plants alive and thriving, White said.

"We are looking at a cycle-soak type of irrigation that will really benefit consumers," he said. "If they would apply water using this method to their home landscapes, they would use water more efficiently, they would capture more water in the soil and they would produce better turf and landscape plants – healthier plants on the lawns and landscapes."

White said cycle-soak is all about not just setting a sprinkler system to come on all at one time for 20 to 30 minutes, as is typically done by the majority of those trying to maintain a lawn.

"What we've found is you are going to lose probably 30 to 40 percent of the water you actually apply," White said. "It will end up going across the curb, down the gutter and into the storm drain. The cycle-soak method creates an environment where we get better infiltration of that water into the soil."

He explained that while Texas has a variety of soils ranging from sandy to clay textures, most urban areas are primarily on clay textured soils. Those soils are very fertile but have very small pore spaces and are slow to accept water. Infiltration rates are well below one-tenth an inch per hour across most of the state.

The cycle-soak technique allows smaller amounts of water to be applied

with a rest period between them, giving the water time to enter the soil and be redistributed within the soil profile, White said.

"So what you might do is get very familiar with your irrigation controller and set it to come on and operate for 5 or 6 minutes and then turn off and let the water soak into the soil for about an hour. Then let the program come back on for 5 or 6 minutes again, turn off and soak in again," he said. "You might need for it to come on for another application to get the total water volume you need to apply for the day to support plant health and needs."

The advantage of watering in this manner, White said, is that while there might be a few drops of runoff, it won't be anywhere near the 30 percent to 40 percent runoff that happens with a 20-minute cycle on a typical home consumer irrigation system.

"What we are trying to demonstrate to people is they can use water more efficiently," White said. "It affects your bottom line. It will not only reduce your water consumption for lawn and landscape irrigation, but it will also help preserve potable water for future use in Texas."

Provided by Texas A&M University

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