Maximizing Turfgrass Irrigation Efficiency

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Fresh water available for human consumption, recreation activities, agricultural production, and industrial uses accounts for only 1% of all water on the earth. The remaining 99% is salt water and polar ice. Water is a particularly precious resource in the arid Southwest where average annual rainfall is approximately 10 inches. This is insufficient for plant needs, such as tall fescue (Festuca arundinacea), which comprises 70-80% of the sod industry in the state of California. Tall fescue is also a popular turfgrass species in other regions of the USA. In Riverside, CA, tall fescue requires an average of 46 inches of water annually while a typical warm-season turfgrass requires 35 inches of water each year. As might be expected, plant water needs are greater in the arid West vs. the humid East.

Irrigation is a necessary component of typical landscape maintenance in the Southwest, and is becoming commonplace in landscapes countrywide. The