

Efficient Irrigation and Fertilization Practices for Urban Landscapes

Background

Turfgrass covers a greater portion of the urban landscape than other types of vegetation. It is very important to the quality of urban life. Benefits of turfgrass include its aesthetic appeal, the provision of safe surfaces for recreational activities, control of soil erosion, and enhancement of air quality by reducing the absorption and storage of solar radiation. The majority of irrigation used in urban landscapes is applied to turfgrass. Therefore, it is important to use irrigation and fertilization practices that promote turf grass vigor, yet also conserve water and protect surface water quality. A linear gradient irrigation system (LGIS) at the Dallas Center is used to evaluate the water requirements for major southern turfgrass species and to determine what level of soil profile moisture is needed to maintain turfgrass vigor.

Objective and Approach

Identify irrigation practices that maintain healthy and vigorous turf while conserving municipal water supplies.

Program Benefits

- A large quantity of irrigation applied to turfgrass landscapes is wasted through runoff and leaching. Municipal water supplies can be conserved by reducing turfgrass irrigation to minimal levels needed to maintain plant health and vigor.
- Eliminating excessive runoff from turfgrass landscapes will improve the quality of water in urban streams and lakes. Many municipalities in Texas rely on surface water for their municipal water supply.

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