

Irrigation

Water is a fundamental element for physiological processes in turf such as photosynthesis, transpiration, and cooling, as well as for the diffusion and transport of nutrients. Golf turf quality and performance depend on an adequate supply of water through either precipitation or supplemental irrigation. Too little water induces drought stress and weakens the plant, while too much causes anaerobic conditions that stunt plant growth and promote disease. Excessive water can also lead to runoff or leaching of nutrients and pesticides into groundwater and surface water.

Precise water management is arguably the single most important turf practice for maintaining high quality golf turf. When the amount of water lost from the turf system by evapotranspiration (ET) exceeds amount supplied by rainfall, the turf must be irrigated. Courses should maximize water use efficiency through proper irrigation, as this conserves water and decreases the likelihood of water quality impacts from runoff or leaching. Deliberate use includes using an efficient irrigation system and ensuring the system's proper function, using only the amount of irrigation water needed to maintain healthy turf in playing areas, and incorporating cultural practices that increase the water holding capacity of soil.

In addition to the deliberate use of water, the increased availability of improved turfgrass species and varieties provides an excellent opportunity to select the most well adapted turf to site conditions and can be selected for drought tolerance as well. More information on [turfgrass selection](#) can be found in the Cultural Practices section of this web site.

BMP Statements

- Design and maintain irrigation systems to uniformly apply water to the intended area of management.
- Determine accurate supplemental water needs based on appropriate climate and soil data.
- Assess system efficiency through regular audits of application rate and uniformity.