USGA REGIONAL UPDATE



Five Things To Know About Water Management During Summer

By Pat Gross, regional director, West Region

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Water management is a major focus at golf courses, especially on putting greens. Turf naturally uses more water during summer due to long days and high temperatures, leading some to believe that applying extra water to greens is the best way to keep them alive. Is that true? Here are five things to know about water management on greens during summer:



Hand watering places water only where needed, helping conserve water resources.

1. Water conducts heat, so don't over water.

Plants need water for cooling and to translocate nutrients. However, water also has a tremendous ability to conduct heat. When a putting green is saturated with water, the soil heats up and roots can cook. Keep in mind that too much water can be just as harmful as too little.

2. Soluble salts in soil can limit the ability of plants to take up water.

Water often contains mineral salts that are deposited in the soil when rain or irrigation water evaporates. As salt levels increase, they can harm turfgrass by inhibiting water uptake through the root system. If a golf course has a history of soil- and water-salinity issues, it is important to use a handheld electrical conductivity meter to monitor salinity levels. Periodic deep watering will help dilute salts and flush them out of the root zone.

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3. Make sure soil moisture in the morning is sufficient to get turf through the day.

The best time to water is early in the morning. This allows water to enter the soil when it is less susceptible to evaporation while minimizing leaf wetness that can cause disease. Turfgrass plants can use the moisture reservoir in the soil to remain cool throughout the day. Find a morning moisture level that is right for your greens and then monitor soil moisture status throughout the day. There are various devices that can be used to make sure there is enough water in the soil such as soil probes and moisture meters.

4. Syringing only temporarily cools turf surfaces.

Syringing is the practice of applying a light film of water on turfgrass leaves to help cool the plants. As water evaporates it absorbs heat energy required to change from a liquid to a vapor from its surrounding environment, causing a cooling effect. The same principal applies to syringed turfgrass or sweat on a person's skin. However, it is important to note that the cooling effect of syringing lasts only a few minutes. Repeated syringing combined with the use of fans will maximize the cooling effect. The video Keeping Turf Cool With Technology from the University of Nebraska explains syringing in more detail.

5. Hand watering is not a waste of water; it conserves water.

Some golfers wonder why greens are watered by hand when golf courses have sophisticated, automatic irrigation systems. However, turning on a sprinkler that covers 12,000 square feet to water a small, localized dry spot doesn't make a lot of sense. When done properly, hand watering applies water to only the areas that need it, maintaining healthy turf and excellent playing conditions without wasting water.

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