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Optimizing run times for putting green irrigation will deliver better playing conditions, healthier turf and can help conserve water.

GREENS IRRIGATION EQUALIZER

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Putting greens are the most important area on a golf course, yet they often receive the worst irrigation distribution uniformity. To make matters worse, some courses schedule the same irrigation run times for all their putting greens. Greens vary in size, shape and number of sprinklers per green. Moreover, the arcs of each putting green sprinkler could vary significantly. If putting greens all receive the same run times, each green will likely receive a different amount of water, leading to inconsistent moisture content. Here are three easy steps to equalize irrigation among greens:

Step 1: Measure the irrigated area for each putting green in square feet.

Step 2: Enter the total irrigated area into a spreadsheet and calculate the average area of all your greens.

Step 3: Divide the irrigated area for each green by the average irrigated area of all greens and multiply by 100.

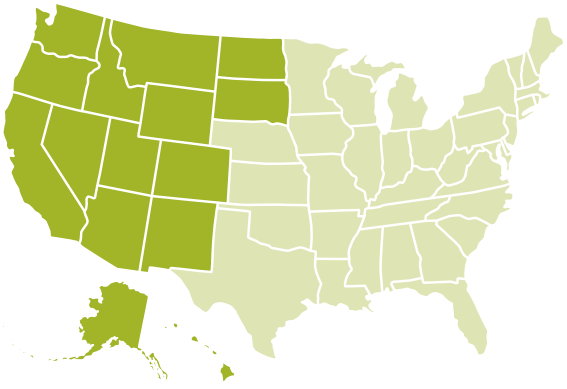
Step 3 results in a percent. Apply the percentage for each green to the corresponding putting green settings in the central irrigation computer as a runtime adjustment factor. For example, if the result of the calculation in step 3 is 96 percent for the putting green on hole no. 1, input 96 percent as a runtime adjustment in your irrigation control software. After making this adjustment, the putting green on hole no. 1 will receive 4 percent less water than an average sized putting green. Greens with a percentage greater than 100 will probably be the greens you have noticed as being historically dry. Conversely, the greens you have observed as the wettest are likely to have a percentage less than 100.

This simple method theoretically adjusts the irrigation system so that every green receives the same amount of water during irrigation events. This 3-step process is a great start, but it just scratches the surface of the ways to improve irrigation uniformity. For example, this strategy can be applied to each sprinkler to calculate individual precipitation rates. Run times can be further optimized by routinely monitoring moisture status in green quadrants.

For information on the USGA's Course Consulting Service Contact the Green Section Staff.

Learn More

Best wishes in 2019 and please do not hesitate to contact the USGA Green Section for more information on this technique or any other agronomic practice.



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