



*Using a portable EC meter to check soil salinity on putting greens early in the season can help determine if corrective action is necessary.*

## IT'S NEVER TOO EARLY TO START CHECKING SALINITY ON GREENS

BY PAT GROSS | REGIONAL DIRECTOR, WEST REGION

Soil salinity and *Poa annua* don't go well together. While few courses experience salinity problems during cool spring temperatures, the lack of good flushing rains in many areas of the West this past winter means that soils will probably be starting the season with moderate to high levels of soluble salts. It's never too early to start monitoring salinity levels, especially on *Poa annua* putting greens, so that corrective action can be taken if necessary.

USGA Agronomists are often asked about where salts in the soil come from. Mineral salts are naturally contained in many water sources and fertilizers. They accumulate in the rootzone as water evaporates from the soil. High concentrations of soluble salts limit the ability of grass to take in water through the root system. Monitoring putting greens with an electroconductivity (EC) meter helps to determine when salt concentrations are nearing threshold levels and when flushing needs to occur.

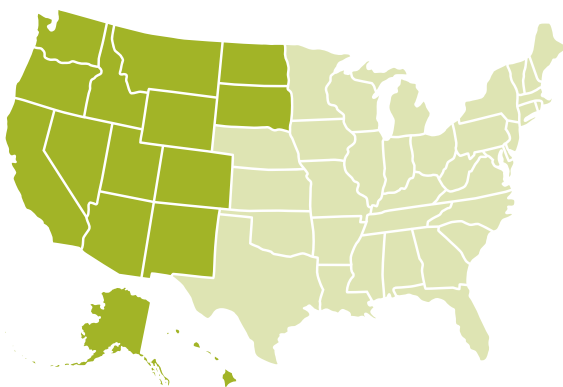
Today, there are several tools available for monitoring soil salinity including portable EC testers and moisture meters that are capable of taking salinity measurements. A recommended protocol is to take readings in the front, middle and back of each putting green, emphasizing low-lying areas where salts can accumulate. As a general guideline, soil salinity should be maintained below 3.0 deciSiemens per meter (dS/m). Because portable EC testers measure differently than laboratory meters, this value converts to a reading of 0.7 milliSiemens (mS) on most portable EC meters (PACE Turf, 2009). Keep in mind that a recent fertilizer application can cause high readings that may not be cause for alarm.

Different strategies are used to keep soil salinity below threshold levels. Some prefer to add a leaching fraction of 10-20 percent to routine irrigation schedules. Others prefer to flush putting greens with a heavy irrigation cycle to push salts out of the rootzone. The USGA article, "[Flushing Greens: More Than Just Heavy Watering](#)," provides further details on this topic.



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