



Strong El Niño Impacting Southern Golf Courses

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Before discussing the impact of El Niño on southern golf courses, an upcoming educational opportunity on turf colorants is available:

2016 Fairway Turf Colorant Workshop

The 4th-annual Fairway Turf Colorant Workshop will be held Tuesday, Feb. 2, 2016 at the Pinehurst Resort, Pinehurst, North Carolina from 8:30 a.m. to noon. This is a one of a kind opportunity to study the art and science of using turf colorants on warm-season fairways. We have a great line up of speakers scheduled, and we will spend time on the golf course viewing treated plots and observing an actual turf colorant application. If you would like to reserve one of the 50 remaining slots, email Patrick O'Brien at patobrien@usga.org. There is no cost to attend this workshop.



Increased rainfall, reduced sunlight and cooler temperatures are creating the “perfect storm” for poor playability and turf decline.

El Niño

For months, weather forecasters have predicted a strong El Niño (see [October Regional Update](#)). While many of us in the Southeast Region had hoped that the predictions were wrong, El Niño is here and causing some concerns.

What is El Niño? The term El Niño refers to the ocean-atmosphere climate interaction linked to a periodic warming in sea surface temperatures across the central and east-central equatorial Pacific. Typically, the El Niño effect causes increased rainfall in the southern United States during the winter months. In fact, it has rained 32 of the past 45 days in the West Palm Beach area. For comparison, the 30-year average for this same timeframe in West Palm Beach is 12 days.

How does El Niño affect golf courses in southern regions? El Niño affects golf courses in several ways. For one, increased rainfall creates wet environments and softer playing conditions. Observations on recent Course Consulting Service visits include:

- Increased stress on greens and collars
- Frequent plugged lies
- Short roots and larger ball marks on greens
- More “mud balls” in fairways
- Less ball roll in fairways
- Tire rutting from mowers and golf carts
- Higher-than-normal water levels in lakes and ponds

The combination of wet, cool and cloudy conditions can cause considerable turf stress. Turfgrasses need sunlight for growth. Prolonged cloudy weather causes turf to deplete carbohydrate reserves that are stored in roots, weakening the root system. Roots take up oxygen from soil and saturated soils make it nearly impossible for weakened roots to survive.

How can you protect your golf course? Ultimately, we need drier weather and more sunlight. A few tips to consider for improving turf health and playability at your facility include:

1. Monitor soil moisture and reduce overhead irrigation – Many facilities have not applied irrigation since before Christmas 2015, yet rootzones remain saturated because of the increased rainfall. Keep track of your soil moisture and reduce irrigation as much as possible at this time. Spend the extra money and purchase a dependable soil moisture meter that measures volumetric water content.
2. Increase mowing heights on greens – Do not stress your greens by mowing low. Sacrifice a little bit of playability for turf health and be more tolerant of slightly slower conditions. Turfgrass leaves are like miniature solar panels. Therefore, providing greater leaf area by increasing mowing heights will allow turf to create more energy through photosynthesis, promoting turf health and deeper roots
3. Vent greens regularly with solid-tine aeration – Venting with small, “pencil” tines – e.g., 0.25-inch diameter solid tines – is recommended on a monthly basis during normal winter months. Some facilities are venting greens as frequently as every two weeks. Venting improves rooting by relieving soil compaction and increasing soil oxygen.
4. Use plant protectants – Fungicides are being applied at many facilities to reduce disease and improve turf growth. Leaf spot and Pythium diseases have been among the most common pathogens on golf courses over the past few weeks.
5. Manage golfer traffic – Ropes and stakes often are used to reduce cart traffic stress and are particularly helpful during the winter. Also, more courses than normal have adopted “cart path only” policies during the past month because of saturated soil conditions.

6. Implement a fairway topdressing program – “Mud balls” are a common problem when fairway soils remain saturated and are caused, in part, by an undiluted surface layer of organic matter. This thick, spongy layer causes more plugged lies and increases the occurrence of mud – i.e., organic matter – on balls. While fairway topdressing is costly, it certainly improves playability – especially surface firmness – and helps reduce the occurrence of “mud balls” in fairways with excessive organic matter.

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[Information on the USGA’s Course Consulting Service](#)

[Contact the Green Section Staff](#)