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Turf in low-lying, poorly drained areas can succumb to saturated soil conditions and high temperatures.

THE COSTS OF A WET SUMMER

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This summer has been characterized by frequent and at times heavy rain, frustrating golfers and superintendents alike. Following rain events, playing conditions will be softer and slower than usual. Bunkers also may get washed out and disease activity rises, all while pressure mounts to reopen the course as soon as possible. Let's not forget the tough decision of whether to allow carts on the course. Do these challenges sound familiar?

There are many obvious effects of a wet summer – most of which have a negative impact on playability – but for superintendents, the cost of a wet summer doesn't stop when the rain has passed.

Disease pressure has been extremely high for extended periods of time this year. When environmental conditions are ideal for disease development, fungicides often must be applied to prevent infection and subsequent turf decline. Application intervals have been tightened this summer because of the heavy disease pressure, resulting in additional applications and more money spent on fungicides. In many instances, courses are struggling with disease outbreaks because the soils were too wet to make timely

applications of they could not afford the extra fungicides. For courses struggling with disease damage, recovery with aeration and seeding may be required.

Pest management must always include an integrated approach that combines cultural and chemical practices. Consider the following cultural practices to reduce disease severity:

- **Anthracnose** – Disease severity is elevated at low mowing heights and under limited nitrogen programs. During optimal weather for anthracnose, raising the height of cut and slightly increasing nitrogen application rates will lessen the severity of the disease. Light and frequent sand topdressing will also reduce disease severity.
- **Dollar spot** – This disease is one of the most problematic and costly in the Northeast. It is often the target of most fungicide applications. Cultural control efforts include lightweight rolling, maintaining adequate fertility and soil moisture and reducing the duration of leaf wetness. Fortunately, plant breeding efforts have produced several turf varieties that are resistant to dollar spot. These varieties are performing well in research trials and on golf courses throughout the Northeast.

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Drainage problems have been highlighted at many courses this year. Many low-lying areas with poor surface drainage have suffered turf loss due to prolonged periods of saturated soil conditions and high heat.

Weed pressure, particularly from crabgrass, nutsedge and kyllinga, also has been increasing throughout the last couple of weeks. This spring's severe temperature fluctuations made it difficult to time preemergence applications. Further, plentiful rain and high heat this summer has expedited the breakdown of herbicides. So, what is the cost of increased weed pressure? More labor hours will likely be spent manually removing weeds or making spot treatments with postemergence herbicides this year. Otherwise, there will likely be increased weed pressure next year because of the seeds deposited into the soil by this year's large weed populations.

Managing greens, tees and fairways can be more expensive during periods of increased environmental stress. However, one of the most labor-intensive and expensive areas to maintain during periods of wet weather doesn't even grow.

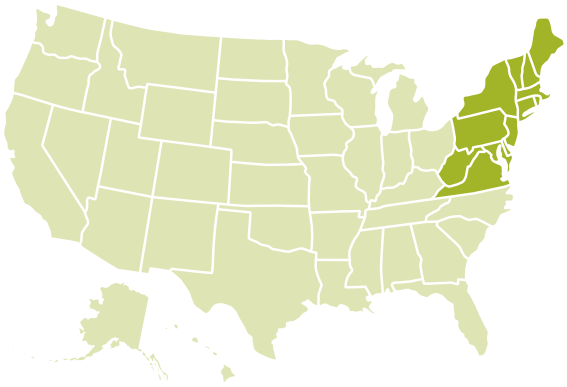
Bunkers are often maintained to meet high expectations, which is achieved through regular raking and frequent trimming and cleaning. Bunkers may also require extra labor for maintenance due to their design. In some cases, more labor hours are spent each day preparing bunkers than putting greens.

When heavy rain events cause bunker washouts, bunker maintenance becomes even more costly. Sand that washes down from bunker faces must be repositioned, and poorly draining bunkers may need to be pumped out. When washouts occur, sand also can become contaminated and may ultimately need to be replaced.

Repeatedly repairing washouts is costly and discouraging for maintenance crews because it is so labor intensive. If repeated heavy rains are forecast, it may be best to wait to repair bunkers until all the bad weather has passed.

There is no quick fix for these problems, and facilities with poorly performing bunkers are faced with difficult decisions. Either they can spend the money to rebuild bunkers and improve drainage, making them less expensive to maintain in the long run, or they can continue to spend large sums of money on labor and repairs while struggling to maintain bunker performance.

Superintendents are forced to balance turf health, playability and their budgets. This balancing act is never easy. Wet seasons, like we are experiencing this year, certainly add to the challenge.



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