



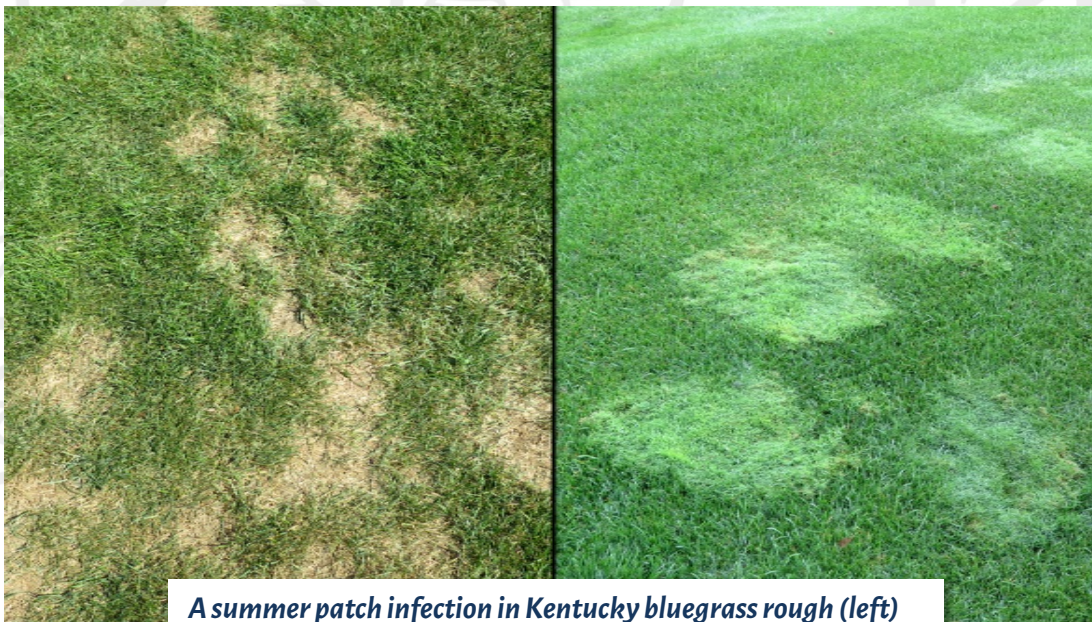
The Fallout From The 2016 Season Will Be Felt For Years

By David Oatis, regional director, Northeast Region

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Recent cooler temperatures have been a welcomed relief for turf managers, golfers and cool-season turf, which now is rebounding due to shorter days and cooler nights. However, turf recovery may take a while at some courses. It has been a difficult year and few courses escaped the season unscathed. Throughout the Northeast Region turf was damaged by drought, excessive moisture, disease and insects. Perhaps most noticeably, weed invasion at many courses hit an all-time high this year. As you review the season and evaluate what worked and what didn't, consider the following:

- This year's drought identified irrigation coverage problems at many courses. It has also proven that every course should have a drought emergency plan.



A summer patch infection in Kentucky bluegrass rough (left) often results in encroachment of creeping bentgrass (right).

- Weed populations exploded as a result of temperature and moisture extremes throughout the Northeast Region. The best defense against weed invasion is to maintain dense, healthy turf. Unfortunately, the extreme conditions meant that few courses were able to maintain turf density this year. The resulting weed outbreaks helped replenish the bank of weed seed in the soil. It may take several years of intensive management to get weeds back under control.
 - Annual bluegrass, creeping bentgrass, and bermudagrass can be desired species or difficult weed problems, depending on one's perspective.
 - Annual bluegrass struggled this year due to high temperatures and disease pressure.
 - The high temperatures and abundant sunlight helped bermudagrass perform exceedingly well, which is excellent if it is your desired species. However, where bermudagrass is considered a weed, the favorable weather this year created more management challenges for the future.
 - Bentgrass populations increased at many courses – a welcomed sight on many greens, tees and fairways. However, bentgrass populations also increased in roughs, where it is not desirable. Summer patch infections in Kentucky bluegrass opened the door for bentgrass populations to establish or spread. If summer patch caused significant issues, it may be time to switch to a turf-type tall fescue. Turf-type tall fescue is not a perfect species, but it handles warm soil temperatures and drought better than Kentucky bluegrass and it is not susceptible to summer patch. In the meantime, implement an aggressive bentgrass control program in any rough areas that have experienced bentgrass encroachment.
- Trees also suffer from drought. The effects of drought on tree populations will be felt for several years. Many trees already have failed and more will fail in the future as a result of this year's drought. Young trees and trees with vascular problems caused by bacterial pathogens, insect damage, girdling roots or impaired root growth will be most affected. Evaluate options carefully:

- Weak trees that have been further stressed by drought may never recover – removal may be the best option.
 - Not all failed trees should be replaced. Wait one full year before making a decision about replacing a tree. During that time, evaluate the loss and give golfers time to become accustomed to a more open environment.
- Beware of late season anthracnose outbreaks.
 - Also, annual bluegrass weevil damage recently has been observed. While annual bluegrass weevil populations may not be high enough to warrant treatment, their presence may explain why anthracnose damage isn't responding to fungicides.

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