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be areas to monitor for winter problems.

TODAY'S DROUGHT AND TOMORROW'S PROBLEMS

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This spring, many areas in the Southeast experienced near record rainfall. At the time, many wished for the rains to stop. Fast forward to now, many areas in the Southeast are bone dry, with some regions implementing watering restrictions. When perennial ornamentals like azaleas and dogwoods wilt and pine trees brown out, these are indicators of extreme environmental stress. No matter what marketing advertisements may claim, no product is going to magically alleviate the current stress on turfgrass areas save for the return of normal rainfall.

The current dry conditions pose numerous problems. For example, areas that are most affected by drought are especially vulnerable to adverse winter weather. Also, when the rains do finally return, it is not uncommon to see 10 weeks' worth of pest outbreaks condensed into a few days. Here are a few things to look out for and some steps you can take to minimize issues:



Areas most affected by drought – Areas that are the first to brown out are like a neon light indicating
a root system that is weaker than adjacent healthy areas. These same areas are going to be more

susceptible to root diseases and potentially winter injury should freezing temperatures occur. Monitoring these areas during the winter to maintain good soil moisture can help avoid turf damage and a weak spring transition.

• Irrigation coverage issues – Extended dry conditions highlight where coverage is lacking and where it is excessive as the irrigation system is the primary source of water. Correcting these problems can be as simple as adjusting sprinkler run times, nozzles or arcs. Follow up with frequent soil moisture monitoring to ensure the issue has been resolved.

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- **Hydrophobic areas** As soils fluctuate from wet to dry, they can accumulate organic acids that repel water. Use of wetting agents, even as spot treatments, can help minimize the impact of this process.
- Bermudagrass stunt mites These pests have become increasingly problematic across the Southeast. At a recent USGA workshop where pests were discussed, mites were reported in South Carolina and other states besides Florida. These mites proliferate and cause the most damage on slow-growing bermudagrass, such as roughs and fairways that are under drought stress. See the USGA articles "We "Mite" Have An Emerging Turf Pest" and "Strangers in a Strange Land" for more information on mites and other emerging insect pests.
- **Nematodes** As soils begin to cool, migratory parasitic nematodes, like sting nematodes, begin to move up in the soil profile to where root density is greatest. Taking samples and soil temperature data can provide valuable information relative to root and turf health in addition to whether nematicide applications may be warranted.
- Annual weeds Many preemergence herbicides advise irrigation if there is no rainfall following
 application to activate the product. If your irrigation uniformity is suspect, or there are areas that are
 difficult to irrigate, these locations will be vulnerable to weed outbreaks when rain and cool weather
 arrives.



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