...Drought Stress...

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The relative drought resistance of 24 turfgrasses*, when grown in their respective regions of adaptation.

Relative Ranking	Turfgrass
superior	dactylon bermudagrass† hybrid bermudagrass† seashore paspalum
excellent	kikuyugrass zoysiagrasses American buffalograss bahiagrass
good	crested wheatgrass St. Augustinegrass† centipedegrass common carpetgrass tropical carpetgrass
medium	tall fescue perennial ryegrass Kentucky bluegrass
fair	creeping bentgrass hard fescue Chewings fescue red fescues
poor	colonial bentgrass creeping bluegrass annual bluegrass
very poor	annual ryegrass rough bluegrass

*Based on the most widely used cultivars of each species.
†Significant variability occurs among cultivars within the species.

...Spring Dead Spot

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Azoxystrobin (Heritage®), fenarimol (Rubigan®), myclobutanil (Eagle®), propiconazole (Banner MAXX®), and triadimefon (Bayleton®) have been shown to suppress SDS. **A fungicide should be applied once or twice in mid to late September or about 30 days prior to anticipated winter dormancy.** Fungicides, however, do not provide complete SDS control, and one application usually provides nearly as good SDS suppression as multiple applications. **Control is typically erratic with any fungicide in any given year, with levels of SDS suppression often ranging from 0 to 75%.** As noted previously, complete control with fungicides is seldom, if ever, achieved. **There is no benefit to be gained by applying a fungicide at spring green-up, because most of the root and stolon damage occurs prior to green-up.** Fungicides should be applied in at least 100 and preferably 200 gallons of water per acre. High water dilutions help move the fungicide down to stolons or between leaf sheaths to make contact with vital growing points. Currently, there are no data to support the premise that watering-in of a fungicide to the root zone will improve SDS control. Indeed, bermudagrass generally loses most of its existing root system at spring green-up. Hence, it would appear that protecting stolons and stems, which can live for one or more years, is the correct target for a fungicide. Therefore, until field research demonstrates otherwise, these fungicides probably should not be watered-in.

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Rust Problems Increase in Midwest

In a recent conversation with Dr. Joe Vargas of Michigan State University, he indicated that **increased turf damage has been observed on numerous Kentucky bluegrass (*Poa pratensis*) lawns in Michigan and the contiguous midwestern states that is being caused by rust (*Puccinia* spp.).** These general field observations indicate that the injury is occurring on a broad range of cultivars of Kentucky bluegrass, although there is a need for detailed studies in this regard, as well as a need to address the specific causal pathogen or pathogens involved.

The rust-causing pathogens are obligate-parasitic fungi, which have a distinct sexual cycle, as contrasted to the imperfect fungi, which have an asexual cycle only. The existence of the sexual cycle allows the heterogeneous *Puccinia* pathogens to develop new races of the fungus to which the existing turfgrass cultivars may not be resistant. The development of new races of *Puccinia* is a well-known, periodic occurrence in certain small grains. Specific investigations are needed to confirm whether this in fact is occurring. **If this is the case, there will be a need to develop new Kentucky bluegrass cultivars that have resistance to the newly emerging races of the *Puccinia* fungus.**