

**Now's the time to prepare for winterkill  
September 2, 2014**

Last weekend brought football, Labor Day, and the unofficial start of fall. Many superintendents are finally feeling a sense of relief as this difficult growing season comes winds down. Widespread winterkill during a cold spring, record wet months of June and August, and a top 10 driest July created a great deal of stress for many turfgrass managers. We optimistically look toward fall as the time to recover from a stressful year. Fall is also the ideal time to prepare for winter and possible desiccation stress.

Try to improve the growing environment to stimulate recovery and promote plant health prior to winter. Aerate and topdress heavily to improve soil porosity, dilute thatch, and bury those crowns. A heavy topdressing application cannot simply be watered in. Make sure you're really applying a significant amount of sand. Dr. Gaussoin's work shows that approximately 1/4" of sand (20 cubic feet per 1000ft<sup>2</sup>) needs to be applied annual to keep up with thatch formation. It was also obvious this fall that creeping bentgrass turf with exposed crowns had the most severe winter desiccation injury. Bury those crowns with sand all fall to dilute thatch and reduce the risk of another winterkill event.

Fall is also the time to fertilize. I prefer quick release nitrogen sources in the fall to stimulate recovery in September and not keep the turf too lush late into the season. Avoid large applications of potassium fertilizer in the fall as current research suggests that excessive rates of potassium in late fall actually stimulates diseases such as snow mold. Also, winter precipitation typically leaches many soil nutrients such as potassium. Therefore, soil test in early spring and apply potassium based on the spring soil test for the upcoming growing season. As a general rule, try to match annual nitrogen and potassium fertilization on sand-based turf. For turf grown on native soil, aim to apply 25 to 50% less potassium than nitrogen fertilizer.

Finally, raise those mowing heights to maximize potential photosynthesis and water when necessary. With any luck and help from Mother Nature, the turf will recover and we will be one step closer from putting the 2014 growing season behind us.

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Figure 1. The biggest contributing factor to last year's winterkill on creeping bentgrass was thatch. Crowns that weren't buried quickly dried out and died during the desiccating winter conditions. Work all year to keep those crowns buried with sand topdressing. Fall is a great time to catch up on topdressing and remove organic matter accumulations with aeration.