

Inaugural Winterkill Field Days help managers recover from more damage in 2015 April 2, 2015

While winterkill isn't as widespread as it was last spring, there are reports of significant amounts of damage throughout southcentral Nebraska. Early evidence suggests it was a combination of both winter desiccation and direct low temperature kill that resulted when an above average late October abruptly changed to a very below average early November. The warm conditions likely reduce plant cold acclimation which either caused ice crystals to form in-between cells of the crown in early November (direct low temperature) or increased the turf's susceptibility to winter desiccation.

We have several resources on our webpage to help promote a quick recovery. Information including winterkill recovery techniques, information for golfers, and a YouTube video describing recovery BMPs can be found at the bottom of the turf.unl.edu homepage. Please contact me if you have questions or need any additional assistance.

The UNL Turfgrass Program also hosted its inaugural Winterkill Field Days at both the JSA Turf Center in Mead, NE and Awarii Dunes GC in Axtell, NE this week. UNL graduate student Darrell Michael presented his research and attendees had the opportunity to view or discuss seven research studies at both sites. Topics included winterkill recovery techniques, winter desiccation prevention, and bermundagrass survival (or lack of) in Nebraska. Turnout was even better than expected; thanks for being such a supportive industry! We would like to thank our collaborators for supporting this research, and we hope to see you at Winterkill Field Day next spring.

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Figure 1. The drastic temperature change in fall and dry winter caused more winterkill in 2015 across much of southcentral Nebraska.

Figure 2. A desiccation duct system was constructed at the JSA Turf Center in Mead to promote winter desiccation. Plots were also cover prior to forecasted precipitation to increase the change of desiccation. The green plot at the bottom of the picture was covered with a clear plastic cover and quickly green up in early March. Sand topdressing and a white permeable cover also provided the best protection.



Figure 3. The clear plastic cover helped protect the turf from winter desiccation and jump started spring green-up. However, a sub 20F night in late March killed a majority of the green tissue. Be sure to remove protective covers before the turf greens up in the spring to avoid crown hydration issues in early spring.



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Figure 4. Attendees took time to look at sprayable desiccation prevention products like different rates of antitranspirants, turf colorants, and horticultural spray soils.



Figure 5. Clear and white covers are a good way to increase soil temperatures in spring during reseeding. Turf colorants also increased 1" soil temperature compared to non-treated areas of dead turf.

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Figure 6. Superintendents at the Awarii Dunes Field Day discussing winterkill recovery.



Figure 7. Despite our best efforts, the Champion ultradwarf bermudagrass doesn't appear to have survived the winter. The turf was alive at the end of November but there haven't been any signs of life from plugs in the greenhouse this spring. Most likely, the strong and cold winds got under the different cover treatments and killed the turf.

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