Be careful with PGRs on new bentgrass seedlings
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Many superintendents have asked if they should use plant growth regulators (PGRs) to stimulate winterkill recovery on creeping bentgrass seedlings. While it's well-known that PGRs like Primo Maxx increase leaf density on mature plants, the effect of Primo on seedlings is less understood. Several years ago we applied Primo Maxx to six week old creeping bentgrass seedlings on a research putting green. The weather was similar to our current weather around southeastern Nebraska. The seedlings treated with Primo Maxx showed signs of obvious phytotoxicity and stunted growth compared to non-treated seedlings. We suspended the experiment until the seedlings had matured. Similar bentgrass seedling phytotoxicity has been observed at a few golf courses this spring.

The most common turf PGRs work by inhibiting biosynthesis of the plant hormone called gibberellin. This hormone mainly promotes leaf elongation in mature turfgrass plants. However, gibberellin also stimulates seed germination and accelerates seedling maturation. It is very possible that application of PGRs to immature turfgrass plants actually inhibits maturation. Our recommendation is to avoid application of PGRs to immature creeping bentgrass plants until they have matured. This may be eight to ten weeks after germination. Until then, use light and soluble forms of nitrogen to encourage recovery and mow frequently to promote plant maturation.

To learn more about PGR timing on our YouTube channel: https://www.youtube.com/watch?v=Zn5EqnCoerA

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Figure 1. While modern plant growth regulators have good safety on creeping bentgrass, avoid applications of growth regulators to immature creeping bentgrass.