

Researchers Confirm First Herbicide-Resistant Annual Sedge in Turfgrass



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Lawrence, KS – Researchers writing in the journal *Weed Science* say the effectiveness of acetolactate synthase (ALS) inhibitors used to control weeds in turfgrass is now being threatened. They have just confirmed an ALS-resistant biotype of annual sedge (*Cyperus* spp.), a weed often found growing in lawns, golf courses, sod farms and similar turfgrass settings.

Resistance to ALS-inhibiting herbicides has increased exponentially over the last decade in a wide variety of cropping systems. This is the first report of an ALS-resistant sedge species in turfgrass, though, as well as the first report of ALS-resistant annual sedge in any setting.

The resistant biotype was found growing in bermudagrass in Georgia where the ALS inhibitor halosulfuron had been used to the exclusion of other weed control techniques.

"ALS inhibitors are valued in turf for their low use rates, broad spectrum control and limited potential to injure turfgrass," says Patrick E. McCullough of the University of Georgia, the lead researcher for the study. "To preserve the effectiveness ALS inhibitors, though, it is clear turfgrass managers need to adopt integrated weed management programs that can help them prevent the establishment and spread of ALS-resistant biotypes."

McCullough and a team of researchers from Auburn University and the University of Georgia explored the efficacy of a variety of weed management techniques that might be used to control ALS-resistant annual sedge. Hand-weeding is effective where practical, they say. In large areas with dense populations of annual sedge, though, preemergence herbicides can play a critical role. They found that the preemergence herbicides MSMA, glufosinate and glyphosate are more effective than sulfentrazone in controlling ALS-resistant annual sedge.

In addition, researchers say the photosystem II inhibitor Bentazon offers turf managers an alternative to ALS inhibitors for postemergence annual sedge control. They recommend that bentazon be used alone or in tank-mixtures with ALS inhibitors for managing herbicide resistance in annual sedge populations.

Full text of the article "[ALS-Resistant Annual Sedge \(*Cyperus compressus*\) Confirmed in Turfgrass](#)" is now available in Weed Science Vol. 64, Issue 1, January-March, 2016.