

COMPARISON OF SULFONYLUREA HERBICIDES FOR TRANSITION TO WARM-SEASON TURF

*Kai Umeda, University of Arizona Cooperative Extension
Phoenix, AZ 85040, kumeda@cals.arizona.edu*

Desert golf courses, sports turf facilities, and turfgrass landscapes are typically overseeded with a winter turfgrass as the summer bermudagrass goes dormant. Spring transition is when the winter turfgrass is replaced by bermudagrass for the summer turfgrass. Typically, perennial ryegrass should begin to recede when spring-summer temperatures rise and growth of the winter dormant bermudagrass is stimulated. Bermudagrass growth is encouraged by manipulating irrigation and fertility, lowering heights of cut, and cultivation of the spring turf. Ryegrass is stressed by the cultural practices that promote bermudagrass, however, many ryegrass cultivars tend to tolerate and survive the high summer temperatures. Selective herbicides can effectively remove ryegrass while the bermudagrass emerges from dormancy. In recent years, the class of sulfonylurea herbicides have demonstrated efficacy in removing ryegrass in the spring without causing injury to the bermudagrass. Some of the very early sulfonylurea herbicides, metsulfuron (Manor*/Blade*) and chlorsulfuron (Corsair*), were used for weed control in small grains or noncrop situations. More recently registered were rimsulfuron (TranXit*), foramsulfuron (Revolver*), and trifloxysulfuron (Monument*) and still in the development stages are flazasulfuron (Katana* proposed) and sulfosulfuron (Certainty* proposed).

The most rapid response and effective ryegrass removal occurred with the latest applications made in June compared to applications made in April or May. Ryegrass removal occurred at 8 days after treatment (DAT) with the latest applications in late June. Applications in May showed that between 16 and 29 DAT, flazasulfuron, foramsulfuron, rimsulfuron, trifloxysulfuron, and chlorsulfuron removed most of the ryegrass. Foramsulfuron, rimsulfuron, trifloxysulfuron, and chlorsulfuron are available products that demonstrated good efficacy when applied during the spring. Higher rates were more effective when applied in the early spring. Regrowth of ryegrass occurred with some lower rates of herbicides applied in April. Flazasulfuron at the rates tested was extremely active and further research at lower rates is needed before it is registered for use as a transition-aid. Sulfosulfuron and metsulfuron were least effective for removing ryegrass. Height of cut and mowing frequency influenced herbicide performance. Ryegrass removal was prolonged to 41 to 56 DAT with less mowing at a higher cut on a driving range.

These transition-aid herbicides have the potential to offer precise ryegrass removal at a specific time in the spring and/or rid ryegrass from shady areas, golf course roughs, or anywhere it may tend to last longer into the summer. Optimal use of transition-aid herbicides will provide aesthetically pleasing turfgrass in the spring when bermudagrass growth resumes after ryegrass is removed.