

Tolerance of four seeded bermudagrasses to post-emergence herbicides during establishment. (C05-williams110139-Oral)

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Abstract:

Summer annual weeds often impede establishment of seeded bermudagrass (*Cynodon dactylon* L. Pers.). Studies were conducted to determine how soon after germination post-emergence grassy weed herbicides could be safely applied to seedling bermudagrass. In a greenhouse trial, MSMA (2.2 kg a.i./ha) and fenoxaprop-p-ethyl (0.28 kg a.i./ha) were applied 7, 14 and 21 days after germination to 'Princess', 'Mirage', 'Yukon', and 'Riviera'. In a subsequent field trial, MSMA, MSMA+dithiopyr (0.55 kg a.i./ha), and quinclorac (0.82 kg a.i./ha) were applied at the same timings to all cvs. except Mirage. Bermudagrasses were evaluated seven days after each application for phytotoxicity. There were no significant differences ($P < 0.01$) among the 4 cultivars in tolerances to any herbicide in either study. All cultivars were tolerant of MSMA, MSMA+dithiopyr, and quinclorac applied at all timings. Conversely, all cultivars were intolerant of fenoxaprop-p-ethyl at all timings ($P < 0.01$), resulting in 100% bermudagrass death. Results indicated that MSMA, MSMA+dithiopyr, and quinclorac may be safely applied to young bermudagrass seedlings to reduce competition from summer annual grasses during establishment.

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