



THE UNIVERSITY OF ARIZONA

Cooperative Extension

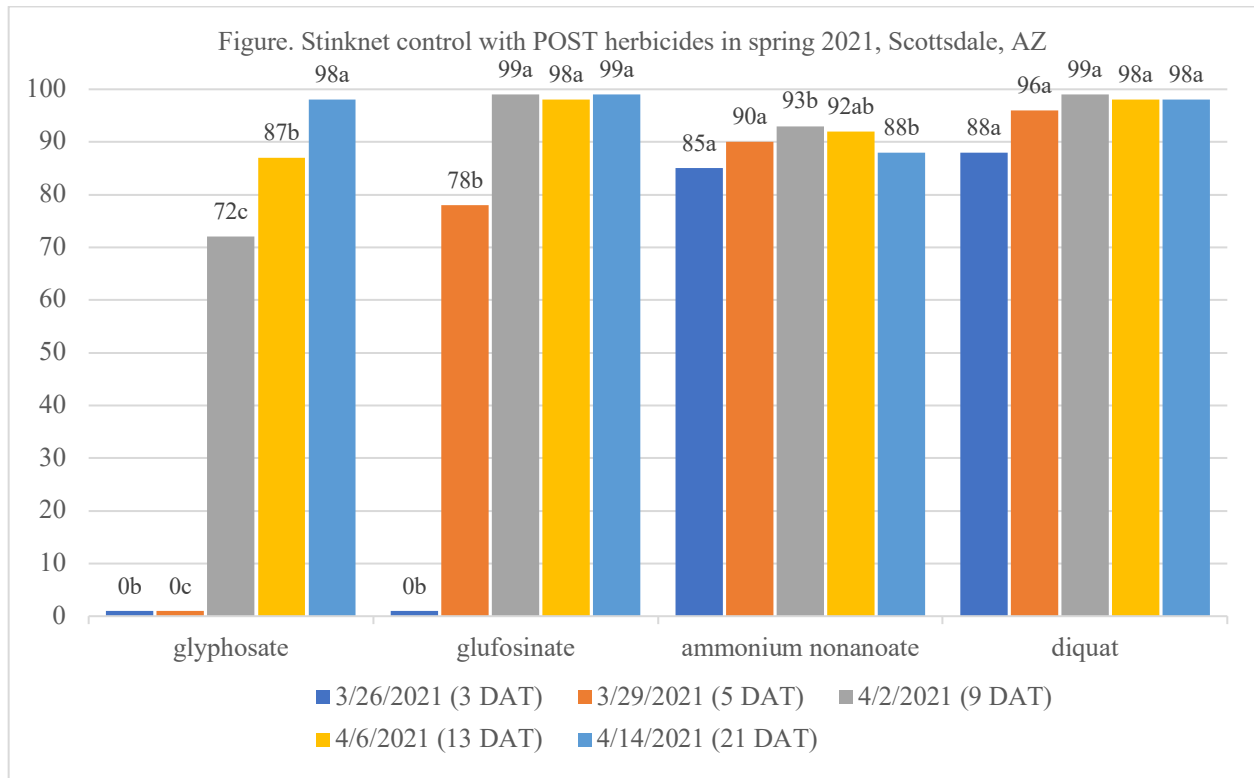
Turfgrass Science

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Efficacy of postemergence herbicides for the control of stinknet in the spring. Kai Umeda (University of Arizona Cooperative Extension, Maricopa County, Phoenix, AZ 85040). A small plot field experiment was conducted in a non-landscaped bare ground retention basin in Scottsdale, AZ. Treatment plots measured 5 ft by 5 ft and treatments were replicated three times in a randomized complete block design. Each individual plot was treated with a 1-gallon pump-up sprayer containing 100 ml water which was equivalent to 50 gpa and equipped with a single adjustable nozzle on a wand. A non-ionic surfactant, Latron CS-7 at 0.25% v/v was added to the diquat treatment. At the time of application on 24 March 2021, the air temperature was 64°F, soil temperature was 60°F, and small weeds were under 6-inch height and were initiating flowering. Weed control was evaluated at intervals following application.

At 2 days after treatment (DAT), ammonium nonanoate (Prizefighter) and diquat (Reward) treated stinknet were observed to be controlled at an acceptable level better than 85%. At 5 DAT, ammonium nonanoate and diquat control of stinknet improved to better than 90% and glufosinate (Finale) exhibited control at 78%. At 9 DAT, diquat and glufosinate exhibited near complete control of stinknet while ammonium nonanoate treated plots had few escape weeds and glyphosate (Roundup Pro Concentrate, formulated as the isopropylamine salt, 5 lb/gal) treated stinknet began to show control at 72%. At almost 13 DAT, glyphosate showed acceptable control at 87%. At 21 DAT, diquat, glufosinate, and glyphosate treated stinknet were nearly completely controlled at 98-99% and ammonium nonanoate gave acceptable control of 88% with few escape weeds in the treated plot areas.

A lack of rainfall after January following emergence of the weeds kept them relatively short and less robust with flowering being initiated at a small size. Weed control with all postemergence herbicides were efficacious within 2 weeks. Diquat and ammonium nonanoate were very rapid and showed control within 2 DAT. Glufosinate was intermediate giving control at 9 DAT and glyphosate took almost 2 weeks to give acceptable control.



Treatments applied on 24 March 2021.

Treatments applied in 50 gpa water.

Glyphosate formulated as isopropylamine salt, 5 lb/gal

Nonionic surfactant added to diquat at 0.25% v/v

Means within similar dates followed by the same letter are not significantly different by Tukey-Kramer HSD at $p=0.05$

