

Postemergence puncturevine (*Tribulus terrestris*) control July 27, 2016

Puncturevine is a summer annual weed that has a prostrate growth habit, yellow flowers, and seeds enclosed in a bur (Figure 1). It is commonly found in disturbed areas, mulch beds, and turf during summer. Puncturevine is probably best controlled by physical removal before burs are produced, but control with herbicides is appropriate for larger infestations. Herbicide mixtures containing 2,4-D, dicamba, MCPP, MCPA, etc. are effective, but it's still best to remove necrotic plants from the site to reduce reestablishment from burs the following year. Furthermore, burs may be introduced to nearby locations through travel on people, animals, or equipment.

We happened to have a bumper crop of puncturevine on our new turf plots on East Campus this summer, which afforded us the opportunity to demonstrate the efficacy of several commonly-used herbicide mixtures on puncturevine. We also decided to include the individual active ingredients from mixtures (that we had on hand) to demonstrate which active ingredients are most effective. Glyphosate was also included for comparison.



Figure 1. Leaflets and a yellow flower of puncturevine.

Treatments were applied to mature puncturevine on July 12, 2016 – nonionic surfactant or methylated seed oil was included if called for by the label. Initial puncturevine coverage ranged from 15 to 80% ground cover among plots. At the rating this week, nearly all herbicides provided 100% control of puncturevine (Table 1). The exceptions were sulfentrazone and carfentrazone-ethyl, which still provided 89 and 62% control, respectively. It's safe to say that most of the active ingredients we included are effective against puncturevine, which should give you flexibility in selecting a product for control (or ease your concerns that a product you may have selected for another weed won't also control the small amount of puncturevine you noticed when you were scouting). Remember to implement several control strategies for whatever pest you're trying to control (e.g. healthy turf, herbicide, bur removal, etc.) to increase the likelihood of success.

We will continue to monitor the research plots to check for recovery from herbicide treatments in the coming weeks.

The mention or omission of a product is not meant to be a recommendation or condemnation for use. Always read the label before making an herbicide application – pay special attention to turf safety and environmental conditions that favor movement of herbicide offsite.

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Table 1. Effects of treatments on the control of puncturevine on July 25, 2016 (two weeks after treatment).

| | | % Control |
|------------------------|---------------------|-----------|
| Glyphomate 41 | glyphosate | 100 |
| 2,4-D Amine 400 | 2,4-D | 100 |
| Spotlight | fluroxypyr | 100 |
| MCPA Amine | MCPA | 100 |
| Dismiss | sulfentrazone | 89 |
| Quicksilver | carfentrazone-ethyl | 62 |
| Trimec Classic | 2,4-D | 100 |
| | MCPP | |
| | dicamba | |
| Super Trimec | 2,4-D | 100 |
| | 2,4-DP | |
| | dicamba | |
| Speed Zone | carfentrazone-ethyl | 100 |
| | 2,4-D | |
| | MCPP | |
| | dicamba | |
| Power Zone | carfentrazone-ethyl | 100 |
| | MCPA | |
| | MCPP | |
| | dicamba | |
| Escalade 2 | 2,4-D | 100 |
| | fluroxypyr | |
| | dicamba | |
| Changeup | MCPA | 100 |
| | fluroxypyr | |
| | dicamba | |
| Surge | sulfentrazone | 100 |
| | 2,4-D | |
| | MCPP | |
| | dicamba | |
| Q4 plus | quinclorac | 100 |
| | sulfentrazone | |
| | 2,4-D | |
| | dicamba | |
| T Zone | triclopyr | 100 |
| | sulfentrazone | |
| | 2,4-D | |
| | dicamba | |

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