

Yellow toadflax control with DPX-MAT28 in rangeland

The objective of this study was to evaluate DPX-MAT28 for yellow toadflax control in rangeland compared to Tordon. DPX-MAT28 (aminocyclopyrachlor) is an experimental herbicide being developed by DuPont for weed control in rangeland, pasture, and non-cropland areas. Treatments were applied at the vegetative stage (Jul 25), flowering stage (Sep 11), and in late fall (Oct 16) of 2008. The treatments were evaluated for percent visual control in July 2009. Weed density was recorded prior to application in 2008 and again in July 2009.

Tordon provided 23-60% visual control of yellow toadflax and reduced toadflax density 6-55%. DPX-MAT28 at 1.5 oz provided 90-95% visual control and reduced density 84-98%. DPX-MAT28 at 3 oz provided 100% visual control and reduced density 100%. DPX-MAT28 at 2 oz tank mixed with Glean provided 99-100% visual control and reduced density 99-100%. Grass injury from all treatments was 6% or less.

Table. Yellow toadflax control with DPX-MAT28 in rangeland (0949).

| Treatment ^a | Rate | Timing | Yellow toadflax | Grass | Yellow toadflax | |
|------------------------|----------------|------------|-----------------|----------|--------------------|--------------|
| | | | Jul 08 | Jul 08 | Aug 04, 2008 | Jul 14, 2009 |
| | | | % control | % injury | density per sq ft. | |
| Untreated | | | 0 | 0 | 9.6 | 11.9 |
| DPX-MAT28 | 1.5 oz | Vegetative | 93 | 5 | 8.3 | 0.2 |
| DPX-MAT28 | 1.5 oz | Flowering | 95 | 1 | 6.1 | 1 |
| DPX-MAT28 | 1.5 oz | Fall | 90 | 1 | 7.8 | 1 |
| DPX-MAT28 | 3 oz | Vegetative | 100 | 5 | 8.3 | 0 |
| DPX-MAT28 | 3 oz | Flowering | 100 | 3 | 7.6 | 0 |
| DPX-MAT28 | 3 oz | Fall | 100 | 3 | 5.9 | 0 |
| Tordon | 2 pt | Vegetative | 23 | 1 | 6.2 | 5.8 |
| Tordon | 2 pt | Flowering | 32 | 1 | 10.0 | 6.8 |
| Tordon | 2 pt | Fall | 60 | 1 | 6.4 | 2.9 |
| DPX-MAT28 + Glean | 2 oz + 0.75 oz | Vegetative | 99 | 4 | 7.9 | 0.1 |
| DPX-MAT28 + Glean | 2 oz + 0.75 oz | Flowering | 100 | 6 | 7.1 | 0 |
| DPX-MAT28 + Glean | 2 oz + 0.75 oz | Fall | 100 | 3 | 8.6 | 0 |
| Untreated | | | 0 | 0 | 6.1 | 6.4 |
| LSD (0.05) | | | 6.8 | NS | NS | 2.4 |
| CV | | | 6 | 111 | 40 | 56 |

^a MSO (1%) was applied with all treatments