Supplementary Table 1: Results of the factorial ANOVA to evaluate the effects of ten herbicide treatments. Analysis is shown for percentage cover of *Bromus tectorum*, cool season grasses (C3), and warm season grasses (C4).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Percentage cover | | | | |
|  | *Bromus tectorum* | C3 grass | | C4 grass | |
| Source of variation | Site 2 | Site 1 | Site 2 | Site 1 | Site 2 |
| Treatment | <0.001 | < 0.001 | 0.6324 | 0.4656 | 0.0381 |
| Year | 0.1975 | 0.0217 | 0.0074 | 0.6975 | 0.4358 |
| Treatment by year | 0.1007 | 0.7632 | 0.2686 | 0.3899 | 0.7792 |

Supplementary Table 2: Mean percentage cover of perennial warm season (C4) grasses at both sites 1 and 2 years after treatment (YAT). Means followed by the same letter do not differ significantly within year at P < 0.05. Herbicide treatment rates are as follows: picloram (561 g ai ha−1), aminocyclopyrachlor (ACP, 57 g ai ha−1), imazapic (105 g ai ha−1), indaziflam (44, 73 and 102 g ai ha−1), and non-treated control.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Perennial C4 grass cover | | | |
|  | Site 1 | | Site 2 | |
|  | 1 YAT | 2 YAT | 1 YAT | 2 YAT |
|  | -------------%------------- | | -------------%------------- | |
| Non-treated control | 19 a | 24 a | 46 a | 48 a |
| Picloram | 27 a | 15 a | 43 a | 39 a |
| Aminocyclopyrachlor | 8 a | 17 a | 58 a | 45 a |
| Imazapic | 14 a | 12 a | 38 a | 41 a |
| Indaziflam 44 | 19 a | 26 a | 65 a | 61 a |
| Indaziflam 73 | 13 a | 27 a | 60 a | 61 a |
| Indaziflam 102 | 19 a | 21 a | 48 a | 55 a |
| Aminocyclopyrachlor | 28 a | 26 a | 63 a | 59 a |
| + indaziflam |  |  |  |  |
| Aminocyclopyrachlor | 20 a | 14 a | 41 a | 45 a |
| + imazapic |  |  |  |  |
| Picloram | 25 a | 17 a | 52 a | 70 a |
| + indaziflam |  |  |  |  |
| Picloram | 23 a | 15 a | 52 a | 60 a |
| + imazapic |  |  |  |  |

Supplementary Figure 1: Species richness (#) for each treatment combined across sites, 1 year after treatment (YAT) (2016) and 2 years after treatment (YAT) (2017). Letters indicate significant differences among herbicide treatments across years, using least-squares means (P < 0.05). Herbicide treatment rates are as follows: picloram (561 g ai ha−1), aminocyclopyrachlor (ACP, 57 g ai ha−1), imazapic (105 g ai ha−1), indaziflam (44, 73 and 102 g ai ha−1), and non-treated control.