Tolerance of Timothy to bicyclopyrone

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How We Sprayed

Location	Arlington		Lancaster	
Application Timing	PRE	POST	PRE	POST
Application Timing	Timothy not emerged	Timothy 2-3” tall with 3 true leaves	Timothy not emerged	Timothy 1.5-2” with 2 true leaves
Date	May 7th, 2019	June 13th, 2019	April 25th, 2019	June 6th, 2019
Spray Equipment	Backpack sprayer (20 GPA) with 10-foot boom			

Herbicide Treatments

Treatment	Application Timing	Active Ingredient	Rate
Untreated Control	-	-	-
bicyclopyrone	PRE	bicyclopyrone	3.4 fluid ounces per acre (fl oz/A)
bicyclopyrone	PRE	bicyclopyrone	6.8 fl oz/A
bicyclopyrone Moxy 2	PRE POST	bicyclopyrone bromoxynil	3.4 fl oz/A 16 fl oz/A
bicyclopyrone Starane Ultra 2.8	PRE POST	bicyclopyrone fluroxypyr	3.4 fl oz/A 4.8 fl oz/A
bicyclopyrone	POST	bicyclopyrone	3.42 fl oz/A
bicyclopyrone	POST	bicyclopyrone	6.8 fl oz/A
Moxy 2	POST	bromoxynil	16 fl oz/A
Moxy 2 bicyclopyrone	POST POST	bromoxynil bicyclopyrone	16 fl oz/A 3.42 fl oz/A
Starane Ultra 2.8	POST	fluroxypyr	4.8 fl oz/A
Starane Ultra 2.8 bicyclopyrone	POST POST	fluroxypyr bicyclopyrone	4.8 fl oz/A 3.42 fl oz/A
Huskie 2.06 EC	POST	pyrasulfotole + bromoxynil	14.9 fl oz/A

Research site:
Timothy seeded on May 5th, 2019

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63 days after PRE application, 26 after POST application				459 days after PRE application, 422 after POST application
Treatment	Application Timing	Rate	Timothy (% injury)	Timothy Seedhead Weight (g)
UTC	-	-	0.5 -	7.0 -
bicyclopyrone	PRE	50g AI/Ha	1.8 -	6.5 -
bicyclopyrone	PRE	100g AI/Ha	2.3 -	7.2 -
bicyclopyrone Moxy 2	PRE POST	50g AI/Ha 280 g AE/Ha	1.8 -	7.2 -
bicyclopyrone Starane Ultra 2.8	PRE POST	50g AI/Ha 118g AE/Ha	1.0 -	7.3 -
bicyclopyrone	POST	50g AI/Ha	2.0 -	7.2 -
bicyclopyrone	POST	100g AI/Ha	1.5 -	6.6 -
Moxy 2	POST	280g AE/Ha	1.0 -	7.0 -
Moxy 2 bicyclopyrone	POST POST	280g AE/Ha 50g AI/Ha	1.3 -	7.0 -
Starane Ultra 2.8	POST	118g AE/Ha	0.8 -	7.4 -
Starane Ultra 2.8 bicyclopyrone	POST POST	118g AE/Ha 50g AE/Ha	1.3 -	6.4 -
Huskie 2.06 EC	POST	270g AI/Ha	1.3 -	7.1 -
Statistics				
Treatment Prob(F)			0.0462	0.8332
Note: Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).				

Key Takeaways:

- Bicyclopyrone can safely be applied to timothy for weed control – no additional Timothy injury observed
- Seed yield in year after treatment was not negatively affected with bicyclopyrone