

Flax Response to Preemergence Herbicides.

A trial was conducted to evaluate flax response to preemergence herbicides. Flax was planted on May 5, 2021 and herbicides treatments were applied on May 6. Flax emerged on May 18. Rainfall of 1.1 inches was recorded after planting and prior to flax emergence. Under these conditions, injury was observed with most treatments 21 days after flax emergence, with the high rate of Spartan plus Zidua and Outlook resulting in the greatest injury. For most treatments, injury was not visible at 31 and 38 days after emergence. However, the high rate of Zidua, the higher combination of Spartan plus Zidua, and Outlook treatments still resulted in moderate injury of flax. No treatment reduced flax stand, but there were differences in flax height due to herbicide treatment. However, differences in height were small and inconsistent with a range of 33 to 37 cm; however, flax height was lowest following application of Outlook. While there were differences in yield they were associated with both weed control and herbicide injury as common mallow emerged with the flax and competed with flax for the limited soil moisture resources available in 2021 due to drought conditions.

Treatment ^a	Rate oz/A	Injury			Height — cm —	Stand No/m ²	Yield LB/A
		21DAE	31 DAE	38 DAE			
1 Untreated	—	5 c	0 d	0 b	35 cde	241 -	203 d
2 Zidua	1.5	8 bc	0 d	1 b	36 b-e	223 -	287 cd
3 Zidua	3	19 b	20 b	13 a	35 de	175 -	301 bcd
4 Spartan Zidua	4 1.5	8 bc	0 d	0 b	37 abc	187 -	341 abc
5 Spartan Zidua	8 3	30 a	20 b	14 a	35 de	164 -	344 abc
6 Warrant	48	9 bc	0 d	6 b	36 a-d	248 -	207 d
7 Dual II Magnum	24	16 b	0 d	0 b	37 a	192 -	422 ab
8 BroadAxe Dual II Magnum	22.8 5.2	15 bc	0 d	3 b	37 ab	199 -	439 a
9 Prowl H2O	48	14 bc	8 c	0 b	34 ef	204 -	335 abc
10 Outlook	18	33 a	29 a	16 a	33 f	178 -	223 cd
LSD P=.10		10.9	4.8	6.7	1.6	NS	127
Treatment Prob(F)		0.0017	0.0001	0.0003	0.0006	0.3112	0.0332

^aZidua, pyroxasulfone (85% DF); Spartan, sulfentrazone (4 lb/gal); Warrant, acetochlor (3 lb/gal); Dual II Magnum, metolachlor (7.64 lb/gal); BroadAxe, sulfentrazone + metolachlor (0.7 + 6.3 lb/gal); Prowl H2O, pendimethalin (3.8 lb/gal); Outlook, dimethenamid (6 lb/gal).