

Preemergence Weed Control in Chickpea.

A trial was conducted to evaluate preemergence herbicides for weed control in chickpea. Chickpea was planted on May 3, 2021 and herbicide treatments were applied on May 6. Few weeds had emerged at time of herbicide application. Weed control was evaluated 15 and 29 days after chickpea emergence. Treatments containing sulfentrazone resulted in best control of wild buckwheat, common lambsquarters, and kochia. Pyroxasulfone plus carfentrazone (Anthem Flex) treatments also resulted in best control of kochia, but was less consistent in control of wild buckwheat and common lambsquarters. No treatment reduced chickpea stand and while there were significant differences in chickpea height, there was no consistent response. Chickpea yield was highly variable due to the drought conditions and no differences in yield were observed.

Treatment ^{ab}	Rate oz/A	Wild buckwheat		Lambsquarters		Kochia		Stand No/m ²	Chickpea Height cm	Yield Bu/A
		15 DAE	29 DAE	15 DAE	29 DAE	15 DAE	29 DAE			
1 Authority Supreme Aim	5.8 1	100 a	100 a	100 a	100 a	100 a	100 a	37 -	30 a-d	868 -
2 Spartan Elite Aim	19 1	94 abc	100 a	98 ab	98 a	100 a	100 a	34 -	30 ab	852 -
3 Spartan Charge	3.75	95 ab	96 ab	100 a	100 a	98 a	97 a	35 -	29 cde	590 -
4 Sharpen	1	61 f	45 c	48 d	31 c	34 c	30 c	36 -	29 e	662 -
5 Sharpen	2	94 ab	84 ab	70 c	51 c	44 c	41 c	37 -	29 e	774 -
6 Sharpen	3	87 bc	75 abc	89 b	85 ab	77 b	68 b	36 -	31 a	783 -
7 Authority Edge Aim	4.4 1	100 a	100 a	100 a	100 a	100 a	98 a	40 -	30 b-e	603 -
8 Anthem Flex	3	66 ef	48 c	94 ab	75 b	97 a	93 a	34 -	31 ab	788 -
9 Anthem Flex	4	83 cd	90 ab	88 b	81 ab	98 a	94 a	36 -	30 abc	745 -
10 Anthem Flex	5	75 de	71 bc	92 ab	91 ab	99 a	95 a	35 -	30 b-e	703 -
11 Untreated		0	0	0	0	0	0	40 -	29 de	629 -
LSD P=.10		11.28	27.79	10.05	20.39	10.86	15.77	NS	1.09	NS
Treatment Prob(F)		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.8220	0.0165	0.6037

^aAll treatments (including the untreated control) were tank-mixed with glyphosate (Roundup PowerMax at 22 oz/A), AMS (8.5 lb/100 gal), and MSO (1% v/v).

^bAuthority Supreme, sulfentrazone + pyroxasulfone (2.08 + 2.08 lb/gal); Aim, carfentrazone (2 lb/gal), Spartan Elite, sulfentrazone + metolachlor (0.7 + 6.3 lb/gal); Spartan Charge, sulfentrazone + carfentrazone (3.15 + 0.35 lb/gal); Sharpen, saflufenacil (2.85 lb/gal); Authority Edge sulfentrazone + pyroxasulfone (2.73 + 1.52 lb/gal); Anthem Flex, carfentrazone + pyroxasulfone (0.267 + 3.733 lb/gal).