

## Postemergence control of kochia in spring wheat.

A trial was conducted to evaluate different herbicide combinations for control of kochia in spring wheat. Wheat was planted on April 28, 2021. Herbicides were applied on June 2, 2021 at the early-tiller stage of wheat maturity. At time of application, kochia height averaged 3.4 inches, common mallow height averaged 2.4 inches, and field bindweed runners averaged 6.4 inches in length. Due to the hot and dry conditions following herbicide application, weeds became stressed due to lack of soil moisture. Under these conditions, many of the systemic type herbicides did not perform as well as would be expected under more favorable growing conditions. Under these conditions herbicide combinations that included bromoxynil, which is a primarily a contact herbicide, often performed better than those with systemic herbicides alone (such as fluroxypyr, or MCPA). This was especially true for kochia control. Even while there were differences in weed control, there were no differences in wheat height or yield due to herbicide treatments. Lack of differences in yield may be due to the high amount of yield variability due to the drought conditions which severely limited crop production.

Treatment <sup>ab</sup>	Rate oz/A	Kochia			Common mallow		Bindweed		Wheat	
		13 DAT	23 DAT	49 DAT	13 DAT	23 DAT	13 DAT	23 DAT	Height cm	Yield Bu/A
		% control								
1 Untreated		0 j	0 j	0 i	0 h	0 g	0 g	0 h	48 -	22.4 -
2 Starane Ultra	5.3	73 fgh	67 hi	71 g	77 efg	93 cde	73 abc	91 ab	48 -	24.8 -
3 OpenSky	16	76 efg	78 efg	79 f	79 def	97 a-d	69 a-e	83 b-e	46 -	21.3 -
4 Quelex	0.75	77 d-g	76 fg	86 cde	84 b-e	95 a-d	76 abc	88 a-e	47 -	24.8 -
Starane Ultra	5.3									
5 Quelex	0.75	57 i	66 i	63 h	72 g	83 f	57 f	70 f	47 -	25.8 -
OpenSky	16									
6 WideMatch	21.3	72 fgh	79 d-g	81 ef	78 efg	95 a-d	67 b-f	90 abc	48 -	23.7 -
7 WideMatch	21.3	64 hi	65 i	66 gh	76 fg	91 de	72 a-d	92 a	48 -	20.1 -
MCPE	8									
8 WideMatch	21.3	73 fg	76 fg	83 def	80 def	94 a-e	71 a-d	82 b-e	48 -	23.2 -
Quelex	0.75									
9 PerfectMatch	16	76 efg	80 d-g	83 ef	82 cde	99 abc	68 b-e	89 a-e	46 -	22.5 -
10 Supremacy	4	71 gh	63 i	66 gh	76 fg	88 ef	63 def	58 g	45 -	23.1 -
11 Talinor	13.7	85 bcd	89 bc	90 bcd	83 b-e	92 de	61 ef	89 a-d	47 -	22.8 -
12 Huskie Complete	13.7	89 ab	92 ab	93 abc	89 abc	99 ab	73 a-d	80 def	47 -	26.9 -
13 Huskie FX	18	94 a	97 a	97 a	91 a	100 a	78 a	85 a-e	49 -	29.3 -
14 Huskie FX	18	83 b-e	86 bcd	92 abc	89 ab	99 abc	78 a	79 ef	46 -	22.0 -
LuxxurB	6.85									
15 Huskie FX	18	89 abc	92 ab	95 ab	89 abc	99 ab	77 a	88 a-e	46 -	24.1 -
LuxxurA	0.21									
LuxxurB	6.85									
16 Carnivore	1	81 b-f	84 cde	84 def	85 a-d	94 b-e	76 ab	88 a-e	49 -	29.2 -
LSD P=.10		8.75	7.23	6.86	6.63	6.47	9.45	9.59	2.55	5.86
Treatment Prob(F)		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.5974	0.4362

<sup>a</sup>Starane Ultra, fluroxypyr (2.8 lb/gal); OpenSky, pyroxsum + fluroxypyr (0.107+0.095 lb/gal); Quelex, halauxifen + florasulam (0.1 + 0.1 lb/gal); WideMatch, fluroxypyr + clopyralid (0.75 + 0.75 lb/gal); MCPE, MCPA-ester (4 lb/gal); PerfectMatch, pyroxsum + clopyralid + fluroxypyr (0.11 + 0.75 + 0.75 lb/gal); Supremacy, fluroxypyr + tribenuron + thifensulfuron (WDG 25 + 1.5 + 4.5%); Talinor, bromoxynil + bicyclopyrone (1.46 + 0.31 lb/gal); Huskie Complete, thiencazabone + pyrasulfotole + bromoxynil (0.042 + 0.26 + 1.46 lb/gal); Huskie FX, pyrasulfotole + bromoxynil + fluroxypyr (0.26 + 1.44 + 0.6 lb/gal); LuxxurA, tribenuron (50% SG); LuxxurB, thifensulfuron (0.083 lb/gal).

<sup>b</sup>NIS (0.5% v/v) was included with treatments 3, 4, 5, 8, 9, 10, and 13; COC and CoAct+ (1% v/v and 2.5 oz/A) was included with treatment 11; AMS (15 lb/100 gal) was included with treatments 3, 9, 10 and 13 and 5 lb/100 in treatment 12.