Effect of Fall Application of Pyroxasulfone on Spring Weed Control in Wheat.

Pyroxasulfone (Zidua 85% DF) was applied at three application timings to evaluate effects on weed control in spring wheat compared with a fall application of glyphosate alone. There did not appear to be any difference in weed control due to timing of application. Control of green foxtail, lambsquarters, and kochia was fair to good with all rates applied, however, control was more consistent with rates of 2.25 and 2.5 oz/A of Zidua. There were no effects on wheat height and while there were differences in wheat yield, it was inconsistent, where in some Zidua treatments yield was less than in the glyphosate alone while in others there were no differences in yield.

			Green foxtail		Lambsquarters		Kochia			
Treatment ^a	Rate	Time ^b	29DAE	49DAE	29DAE	49DAE	29DAE	49DAE	Height	Yield
1 Glyphosate	22	A	0 d	0 e	0 d	0 c	0 c	0 d	48 -	15.5 a
AMS	8.5	A								
2 Zidua	2	Α	74 a	82 c	55 ab	83 ab	91 ab	91 ab	48 -	12.1 c
Glyphosate	22	Α								
AMS	8.5	Α								
3 Zidua	2.25	A	75 a	89 a	63 a	87 a	91 ab	89 bc	48 -	15.4 a
Glyphosate	22	A								
AMS	8.5	A								
4 Zidua	2.5	Α	79 a	88 ab	55 ab	81 ab	90 ab	93 ab	48 -	12.5 c
Glyphosate	22	Α								
AMS	8.5	A								
5 Zidua	2	В	54 c	72 d	26 c	73 b	78 ab	84 c	49 -	14.8 ab
Glyphosate	22	В								
AMS	8.5	В								
6 Zidua	2.25	В	58 bc	83 bc	51 ab	82 ab	74 b	91 ab	47 -	13.4 abc
Glyphosate	22	В								
AMS	8.5	В								
7 Zidua	2.5	В	71 ab	83 bc	58 ab	82 ab	91 ab	95 ab	49 -	11.6 c
Glyphosate	22	В								
AMS	8.5	В								
8 Zidua	2	C	75 a	84 abc	41 bc	75 ab	95 a	91 ab	50 -	12.2 c
Glyphosate	22	C								
AMS	8.5	C								
9 Zidua	2.25	C	73 ab	85 abc	48 ab	74 b	91 ab	96 a	48 -	13.1 bc
Glyphosate	22	C								
AMS	8.5	C								
10 Zidua	2.5	C	71 ab	85 abc	41 bc	76 ab	94 a	95 ab	49 -	14.8 ab
Glyphosate	22	C								
AMS	8.5	C								
LSD P=.10			14.8	6.2	17.0	13.1	17.5	6.9	NS	2.09
Treatment Prob(l	F)		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.2536	0.0173

^a Glyphosate, Roundup PowerMax (4.5 lb/gal); Zidua, pyroxasulfone (85% DF), AMS, ammonium sulfate.

^b Time of application: A, October 7, 2020; B, October 20, 2020; C, November 2, 2020.