

Table 10. Weed control and lentil response to preemergence herbicide treatments in Hettinger, ND 2022.

Treatment	Rate oz/A	Lentil injury	Kochia	lmsqtr	Stand	Height	Yield LB/A
		29 DAE	29 DAE	29 DAE	33 DAE	33 DAE	
		————— %	————— %		# m ²	cm	
Untreated		0 e	0	0	198 a-e	32 -	1522 e
Sharpen	0.75	1.8 de	71 de	78 d	192 b-e	30 -	1731 de
Sharpen+	0.75	16.3 a	78 cde	79 cd	171 e	29 -	1483 e
Outlook	21						
Anthem Flex	3	0 e	74 cde	79 d	202 a-d	30 -	1762 de
Anthem Flex	4	2.5 de	63 e	76 d	211 ab	32 -	1784 cde
Anthem Flex	5	8.5 bc	80 bcd	81 cd	210 ab	30 -	1845 bcd
Anthem Flex+	3	3.8 cde	97 a	95 ab	212 ab	31 -	2246 a
Metribuzin	4						
Anthem Flex+	4	1.8 de	86 a-d	89 bc	221 a	31 -	2095 abc
Metribuzin	4						
Anthem Flex+	5	4.8 cd	90 abc	94 ab	205 abc	30 -	2106 ab
Metribuzin	4						
Sharpen+	0.75	15.8 ab	92 ab	98 a	176 de	30 -	1855 bcd
Dual II Magnum+	2						
Metribuzin	4						
Dual II Magnum fb	2	0 e	70 de	78 d	178 cde	31 -	1953 a-d
Beyond (POST)	6						
LSD P=.10		5.66	16.48	8.75	28.9	NS	320.4
CV		85.49	17.1	8.48	11.43	6.18	12.92
Treatment Prob(F)		0.0001	0.0287	0.001	0.0396	0.5848	0.0077

*All treatment were tank-mixed with Roundup PowerMax (22 oz/A), AMS (8.5 LB/gal), MSO (1%v/v); Beyond was applied postemergence on 6/16/2022; Clearfield lentil were planted in this trial.

**Abbreviations: lmsqtr, common lambsquarters; # m², number of plants per square meter; LB/A, pounds per acre.

Application Description		Application Equipment	
Application Date	5/6/2022	Equipment Type	SPTRMO
Appl. Start Time	3:50 PM	Operation Pressure	35 PSI
Appl. Stop Time	4:26 PM	Nozzle Model	11002
Application Method	SPRAY	Nozzle Type	DRIRED
Application Timing	PREPRE	Nozzle Spacing	20.0 IN
Application Placement	BROADC	% Coverage	100
Applied By	CDD	Boom Length	100 IN
Air Temperature Start, Stop	73.4, 73 F	Boom Height	20.0 IN
% Relative Humidity Start, Stop	34.7, 32.6	Ground Speed	3.3 MPH
Wind Velocity+Dir. Start	8.1 MPH, WSW	Carrier	WATER
Wind Velocity+Dir. Stop	8 MPH, WSW	Application Amount	10 GAL/AC
Wind Velocity+Dir. Max	11.9 MPH, WSW	Mix Size	2 L
Wet Leaves (Y/N)	No	Propellant	CO2
Soil Temperature	63 F	Tank Mix (Y/N)	Yes
Soil Moisture	GOOD		
% Cloud Cover	50		
Next Moisture Occurred On	5/9/2022		
Moisture 1 Week after Appl.	1.24 IN		

*Abbreviations: PRE, preemergence; SPTRMO, tractor mounted sprayer; DRIRED, drift reduction