

MSU Weed Science Research Program

Interseeded winter wheat in soybean

Trial ID: SOY06-22 Study Dir.: Sprague, Stiles, Powell
 Conducted: Campus, T-14 Investigator:

Planting Date: May-20-2022 **Row Spacing:** 30 IN
Variety: P24T35E **No. of Reps:** 4
Population: 150000 seeds/A **% OM:** 2.8
Soil Type: L loam **pH:** 6.5
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plow; Spring soil finish twice.

Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	ANGR	annual grass	
2	CHEAL	common lambsquarters	Chenopodium album
3	ERICA	Horseweed (marestail)	Erigeron canadensis
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

	A	B
Application Timing:	PRE	POST
Date Treated:	May-20-2022	Jun-20-2022
Time Treated:	10:30 AM	9:50 AM
% Cloud Cover:	60	15
Air Temp., Unit:	72 F	69 F
% Relative Humidity:	74	59
Wind Speed/Unit/Dir:	7 M SW	6 MPH SW
Soil Temp, Unit:	63 F	70 F
Leaf Moist/Dew Presence (Y/N):	N	N
Soil Moist:	4	5

Crop Stage at Each Application

	A	B
Crop 1 Name:	GLXMA	GLXMA
Height:		7-8 " (8)
Stage:		V3

Weed Stage at Each Application

	A	B
Weed 1 Name:	ANGR	ANGR
Height:		6-8 " (7)
Stage:		4L-8L (6L)
Weed 2 Name:	CHEAL	CHEAL
Height:		1-3 " (2)
Stage:		4L-10L (8L)
Weed 3 Name:	ERICA	ERICA
Height:		1-4 " (3)
Stage:		4L-10L (8L)

Application Equipment

Appl	Sprayer Type	Ground Speed	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	Spray Volume	Carrier	Operation Pressure
A	CUB	3.8 MPH	AIXR	11003	18 "	20 "	100 "	19 GAL/AC	WATER	30 PSI
B	CUB	3.8 MPH	AIXR	11003	26.0 "	20 "	100 "	19 GAL/AC	WATER	30 PSI

Comments: Wheat (4 wk prior) planted 4/17/22 @ 1.5 million seed/A spread and cultipacked Wheat (at plant) planted 5/20/22 @ 1.5 million seed/A worked, spread, and cultipacked

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 Investigator (Creator): Christy Sprague

Pest Code	CHEAL					
	C, GLXMA	C, TRZAW	CHEAL	C, GLXMA	C, GLXMA	C, TRZAW
Crop Type, Code	Jun-3-2022	Jun-3-2022	Jun-3-2022	Jun-10-2022	Jun-10-2022	Jun-10-2022
Rating Date	injury	injury	control	injury	stage	injury
Rating Type	%	%	%	%	V stage	%
Rating Unit/Min/Max	0, 100	0, 100	0, 100	0, 100	0, 100	0, 100
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	21 DA-A	21 DA-A	21 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Timing	Appl Code	C, GLXMA	C, TRZAW	CHEAL	C, GLXMA	C, GLXMA	C, TRZAW
1	No Wheat					0		98	0		3
	Sharpen	1 fl oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
2	Wheat (4 wk prior to planting)					10	0	55	5		2
	Sharpen	1 fl oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
3	Wheat (at planting)					0	0	100	0		3
	Sharpen	1 fl oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
4	No Wheat					0		0	0		3
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
5	Wheat (4 wk prior to planting)					10	0	0	5		2
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
6	Wheat (at planting)					0	0	0	0		3
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
7	No Wheat					0		100	0		3
	Prefix	2 pt/a		PRE	A						
	Metribuzin	6 oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
8	Wheat (4 wk prior to planting)					5	23	100	4		3
	Prefix	2 pt/a		PRE	A						
	Metribuzin	6 oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						

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Pest Code		CHEAL									
Crop Type, Code		C, GLXMA	C, TRZAW	CHEAL	C, GLXMA	C, GLXMA	C, TRZAW				
Rating Date		Jun-3-2022	Jun-3-2022	Jun-3-2022	Jun-10-2022	Jun-10-2022	Jun-10-2022				
Rating Type		injury	injury	control	injury	stage	injury				
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	V stage, 0, 100	%, 0, 100				
Trt-Eval Interval		14 DA-A	14 DA-A	14 DA-A	21 DA-A	21 DA-A	21 DA-A				
Number of Decimals		0	0	0	0	0	0				
Trt No.	Treatment Name	Rate	Unit	Appl Timing	Appl Code						
9	Wheat (at planting)					0	78	100	0	3	78
	Prefix	2	pt/a	PRE	A						
	Metribuzin	6	oz/a	PRE	A						
	Warrant	3	pt/a	POST	B						
	Enlist One	32	fl oz/a	POST	B						
	Roundup PowerMax 3	30	fl oz/a	POST	B						
	AMS	17	lb/100 gal	POST	B						
	LSD P=.05						7.7	11.9	0.5	0.4	5.5
	Standard Deviation					0.0	5.1	8.1	0.3	0.3	3.7
	CV					0.0	30.66	13.25	22.22	11.55	18.26

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Pest Code	ANGR	CHEAL	C, GLXMA	C, TRZAW	ANGR	CHEAL
Crop Type, Code	Jun-10-2022	Jun-10-2022	Jun-20-2022	Jun-20-2022	Jun-20-2022	Jun-20-2022
Rating Date	control	control	injury	injury	control	control
Rating Type	%	%	%	%	%	%
Rating Unit/Min/Max	0, 100	0, 100	0, 100	0, 100	0, 100	0, 100
Trt-Eval Interval	21 DA-A	21 DA-A	31 DA-A	31 DA-A	31 DA-A	31 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl	Appl						
				Timing	Code						
1	No Wheat					0	98	0		0	95
	Sharpen	1 fl oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
2	Wheat (4 wk prior to planting)					100	58	18	1	100	45
	Sharpen	1 fl oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
3	Wheat (at planting)					100	100	5	0	99	100
	Sharpen	1 fl oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
4	No Wheat					0	0	0		0	0
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
5	Wheat (4 wk prior to planting)					100	60	20	1	100	43
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
6	Wheat (at planting)					80	35	3	7	80	38
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
7	No Wheat					100	100	0		100	100
	Prefix	2 pt/a		PRE	A						
	Metribuzin	6 oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
8	Wheat (4 wk prior to planting)					100	100	6	28	100	100
	Prefix	2 pt/a		PRE	A						
	Metribuzin	6 oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						

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Crop Type, Code	Jun-10-2022	Jun-10-2022	Jun-20-2022	Jun-20-2022	Jun-20-2022	Jun-20-2022
Rating Date	control	control	injury	injury	control	control
Rating Type	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Rating Unit/Min/Max	21 DA-A	21 DA-A	31 DA-A	31 DA-A	31 DA-A	31 DA-A
Trt-Eval Interval	0	0	0	0	0	0
Number of Decimals						
9	100	100	0	74	100	100
Wheat (at planting)						
Prefix	2 pt/a	PRE	A			
Metribuzin	6 oz/a	PRE	A			
Warrant	3 pt/a	POST	B			
Enlist One	32 fl oz/a	POST	B			
Roundup PowerMax 3	30 fl oz/a	POST	B			
AMS	17 lb/100 gal	POST	B			
LSD P=.05	19.5	17.3	2.9	12.7	16.5	16.0
Standard Deviation	13.3	11.8	2.0	8.4	11.3	10.9
CV	17.65	16.39	34.78	45.88	14.95	15.88

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Pest Code	ERICA	WEEDS	RESIDUE	SOIL	
Crop Type, Code	C, TRZAW				C, GLXMA
Rating Date	Jun-20-2022	Jun-20-2022	Jun-20-2022	Jun-20-2022	Jun-20-2022
Rating Type	control	cover	cover	cover	stand (ave)
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	#, 10 ft, -, -
Trt-Eval Interval	31 DA-A	0 DA-B	0 DA-B	0 DA-B	0 DA-B
Number of Decimals	0	0	0	0	1

Trt No.	Treatment Name	Rate	Unit	Appl Timing	Appl Code						
1	No Wheat					100	0	26	0	74	66.8
	Sharpen	1 fl oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
2	Wheat (4 wk prior to planting)					100	91	2	0	7	57.6
	Sharpen	1 fl oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
3	Wheat (at planting)					100	84	0	0	16	61.4
	Sharpen	1 fl oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
4	No Wheat					0	0	49	0	51	66.4
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
5	Wheat (4 wk prior to planting)					53	93	3	0	4	59.3
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
6	Wheat (at planting)					80	50	3	0	47	62.0
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
7	No Wheat					100	0	0	0	100	67.5
	Prefix	2 pt/a		PRE	A						
	Metribuzin	6 oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
8	Wheat (4 wk prior to planting)					100	83	0	0	17	66.3
	Prefix	2 pt/a		PRE	A						
	Metribuzin	6 oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						

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Pest Code	ERICA	C, TRZAW	WEEDS	RESIDUE	SOIL	C, GLXMA				
Crop Type, Code	Jun-20-2022	Jun-20-2022	Jun-20-2022	Jun-20-2022	Jun-20-2022	Jun-20-2022				
Rating Date	control	cover	cover	cover	cover	stand (ave)				
Rating Type	% , 0 , 100	% , 0 , 100	% , 0 , 100	% , 0 , 100	% , 0 , 100	#/10 ft, -, -				
Rating Unit/Min/Max	31 DA-A	0 DA-B	0 DA-B	0 DA-B	0 DA-B	0 DA-B				
Trt-Eval Interval	0	0	0	0	0	1				
Number of Decimals										
Trt No.	Treatment Name	Rate	Appl	Appl						
		Rate Unit	Timing	Code						
9	Wheat (at planting)				100	26	0	0	74	61.1
	Prefix	2 pt/a	PRE	A						
	Metribuzin	6 oz/a	PRE	A						
	Warrant	3 pt/a	POST	B						
	Enlist One	32 fl oz/a	POST	B						
	Roundup PowerMax 3	30 fl oz/a	POST	B						
	AMS	17 lb/100 gal	POST	B						
	LSD P=.05				14.1	5.4	3.4	.	6.6	6.26
	Standard Deviation				9.7	3.7	2.3	0.0	4.5	4.29
	CV				11.88	7.82	25.28	0.0	10.44	6.79

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Pest Code	ANGR	CHEAL	ERICA	C, TRZAW	ERICA	WEEDS
Crop Type, Code	Jun-20-2022	Jun-20-2022	Jun-20-2022	Jun-20-2022	Jun-20-2022	Jun-20-2022
Rating Date	counts	counts	counts	biomass (g)	biomass (g)	biomass (g)
Rating Type	0.5 m2, -, -	0.5 m2, -, -	0.5 m2, -, -	0.5 m2, -, -	0.5 m2, -, -	0.5 m2, -, -
Rating Unit/Min/Max	0 DA-B	0 DA-B	0 DA-B	0 DA-B	0 DA-B	0 DA-B
Trt-Eval Interval	0	0	0	1	1	1
Number of Decimals						

Trt No.	Treatment Name	Rate	Unit	Appl	Appl						
		Rate	Unit	Timing	Code						
1	No Wheat					3	1	0		0.0	3.0
	Sharpen	1 fl oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
2	Wheat (4 wk prior to planting)					0	2	0	39.8	0.0	4.0
	Sharpen	1 fl oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
3	Wheat (at planting)					0	0	0	18.9	0.0	0.0
	Sharpen	1 fl oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
4	No Wheat					3	5	4		0.6	4.8
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
5	Wheat (4 wk prior to planting)					0	3	3	36.0	0.3	3.8
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
6	Wheat (at planting)					1	3	1	10.5	0.2	1.1
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
7	No Wheat					0	0	0		0.0	0.0
	Prefix	2 pt/a		PRE	A						
	Metribuzin	6 oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
8	Wheat (4 wk prior to planting)					0	0	0	23.9	0.0	0.0
	Prefix	2 pt/a		PRE	A						
	Metribuzin	6 oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						

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Crop Type, Code	Jun-20-2022	Jun-20-2022	Jun-20-2022	Jun-20-2022	Jun-20-2022	Jun-20-2022
Rating Date	counts	counts	counts	biomass (g)	biomass (g)	biomass (g)
Rating Type	0.5 m2, -, -	0.5 m2, -, -	0.5 m2, -, -	0.5 m2, -, -	0.5 m2, -, -	0.5 m2, -, -
Rating Unit/Min/Max	0 DA-B	0 DA-B	0 DA-B	0 DA-B	0 DA-B	0 DA-B
Trt-Eval Interval	0	0	0	1	1	1
Number of Decimals						
Trt No.	Treatment Name	Rate	Appl	Appl		
		Rate Unit	Timing	Code		
9	Wheat (at planting)				0	0
	Prefix	2 pt/a	PRE	A	0	0
	Metribuzin	6 oz/a	PRE	A	0	0
	Warrant	3 pt/a	POST	B	0	0
	Enlist One	32 fl oz/a	POST	B	4.2	0.0
	Roundup PowerMax 3	30 fl oz/a	POST	B	0.0	0.0
	AMS	17 lb/100 gal	POST	B		
	LSD P=.05				3.4	3.0
	Standard Deviation				2.3	2.1
	CV				301.08	144.61
					124.77	25.83
					8.65	0.17
					5.74	0.12
					25.83	96.03
					142.46	142.46

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 Investigator (Creator): Christy Sprague

Pest Code	C, GLXMA		ERICA	CHEAL	ANGR	C, TRZAW
Crop Type, Code	Jul-6-2022	Jul-6-2022	Jul-6-2022	Jul-6-2022	Jul-6-2022	Jul-6-2022
Rating Date	injury	stage	control	control	control	control
Rating Type	%, 0, 100	V stage, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Rating Unit/Min/Max						
Trt-Eval Interval	16 DA-B	16 DA-B	16 DA-B	16 DA-B	16 DA-B	16 DA-B
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Timing	Appl Code					
1	No Wheat					0	7	100	100	100
	Sharpen	1 fl oz/a		PRE	A					
	Warrant	3 pt/a		POST	B					
	Enlist One	32 fl oz/a		POST	B					
	Roundup PowerMax 3	30 fl oz/a		POST	B					
	AMS	17 lb/100 gal		POST	B					
2	Wheat (4 wk prior to planting)					11	4	100	100	100
	Sharpen	1 fl oz/a		PRE	A					
	Warrant	3 pt/a		POST	B					
	Enlist One	32 fl oz/a		POST	B					
	Roundup PowerMax 3	30 fl oz/a		POST	B					
	AMS	17 lb/100 gal		POST	B					
3	Wheat (at planting)					2	5	100	100	100
	Sharpen	1 fl oz/a		PRE	A					
	Warrant	3 pt/a		POST	B					
	Enlist One	32 fl oz/a		POST	B					
	Roundup PowerMax 3	30 fl oz/a		POST	B					
	AMS	17 lb/100 gal		POST	B					
4	No Wheat					1	7	96	99	100
	Warrant	3 pt/a		POST	B					
	Enlist One	32 fl oz/a		POST	B					
	Roundup PowerMax 3	30 fl oz/a		POST	B					
	AMS	17 lb/100 gal		POST	B					
5	Wheat (4 wk prior to planting)					6	4	83	100	100
	Warrant	3 pt/a		POST	B					
	Enlist One	32 fl oz/a		POST	B					
	Roundup PowerMax 3	30 fl oz/a		POST	B					
	AMS	17 lb/100 gal		POST	B					
6	Wheat (at planting)					1	6	93	100	100
	Warrant	3 pt/a		POST	B					
	Enlist One	32 fl oz/a		POST	B					
	Roundup PowerMax 3	30 fl oz/a		POST	B					
	AMS	17 lb/100 gal		POST	B					
7	No Wheat					1	7	100	100	100
	Prefix	2 pt/a		PRE	A					
	Metribuzin	6 oz/a		PRE	A					
	Warrant	3 pt/a		POST	B					
	Enlist One	32 fl oz/a		POST	B					
	Roundup PowerMax 3	30 fl oz/a		POST	B					
	AMS	17 lb/100 gal		POST	B					
8	Wheat (4 wk prior to planting)					2	6	100	100	100
	Prefix	2 pt/a		PRE	A					
	Metribuzin	6 oz/a		PRE	A					
	Warrant	3 pt/a		POST	B					
	Enlist One	32 fl oz/a		POST	B					
	Roundup PowerMax 3	30 fl oz/a		POST	B					
	AMS	17 lb/100 gal		POST	B					

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Michigan State University

Interseeded winter wheat in soybean

Trial ID: SOY06-22 Cooperator Trial ID:
 Protocol ID: SOY06-22 Location: Campus, T-14 Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sprague, Stiles, Powell Sponsor Contact:
 Investigator (Creator): Christy Sprague

Pest Code	C, GLXMA		ERICA	CHEAL	ANGR	C, TRZAW					
Crop Type, Code	injury	stage	control	control	control	control					
Rating Date	Jul-6-2022	Jul-6-2022	Jul-6-2022	Jul-6-2022	Jul-6-2022	Jul-6-2022					
Rating Type	injury	stage	control	control	control	control					
Rating Unit/Min/Max	%, 0, 100	V stage, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100					
Trt-Eval Interval	16 DA-B	16 DA-B	16 DA-B	16 DA-B	16 DA-B	16 DA-B					
Number of Decimals	0	0	0	0	0	0					
Trt No.	Treatment Name	Rate	Unit	Appl Timing	Appl Code						
9	Wheat (at planting)					0	7	100	100	100	100
	Prefix	2 pt/a		PRE	A						
	Metribuzin	6 oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
	LSD P=.05					1.9	0.6	4.3	1.3	.	.
	Standard Deviation					1.3	0.4	2.9	0.9	0.0	0.0
	CV					49.37	6.95	3.04	0.91	0.0	0.0

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Michigan State University

Interseeded winter wheat in soybean

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 Protocol ID: SOY06-22 Location: Campus, T-14 Trial Year: 2022
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 Study Director: Sprague, Stiles, Powell Sponsor Contact:
 Investigator (Creator): Christy Sprague

Pest Code		ERICA	ANGR	CHEAL		ERICA
Crop Type, Code	C, GLXMA				C, GLXMA	
Rating Date	Jul-18-2022	Jul-18-2022	Jul-18-2022	Jul-18-2022	Jul-18-2022	Aug-15-2022
Rating Type	injury	control	control	control	ht (ave10)	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	cm, -, -	%, 0, 100
Trt-Eval Interval	28 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B	56 DA-B
Number of Decimals	0	0	0	0	1	0

Trt No.	Treatment Name	Rate	Unit	Appl	Appl						
		Rate	Unit	Timing	Code						
1	No Wheat					0	100	100	100	61.1	100
	Sharpen	1 fl oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
2	Wheat (4 wk prior to planting)					0	100	100	100	37.3	100
	Sharpen	1 fl oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
3	Wheat (at planting)					0	100	100	100	50.7	100
	Sharpen	1 fl oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
4	No Wheat					0	100	99	100	56.7	99
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
5	Wheat (4 wk prior to planting)					0	84	100	100	41.8	61
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
6	Wheat (at planting)					0	94	100	100	51.9	93
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
7	No Wheat					0	100	100	100	58.1	100
	Prefix	2 pt/a		PRE	A						
	Metribuzin	6 oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
8	Wheat (4 wk prior to planting)					0	100	100	100	46.7	100
	Prefix	2 pt/a		PRE	A						
	Metribuzin	6 oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						

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Michigan State University

Interseeded winter wheat in soybean

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 Project ID: Project ID 2: Project ID 3:
 Study Director: Sprague, Stiles, Powell Sponsor Contact:
 Investigator (Creator): Christy Sprague

Pest Code		ERICA	ANGR	CHEAL		ERICA
Crop Type, Code	C, GLXMA				C, GLXMA	
Rating Date	Jul-18-2022	Jul-18-2022	Jul-18-2022	Jul-18-2022	Jul-18-2022	Aug-15-2022
Rating Type	injury	control	control	control	ht (ave10)	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	cm, -, -	%, 0, 100
Trt-Eval Interval	28 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B	56 DA-B
Number of Decimals	0	0	0	0	1	0

Trt No.	Treatment Name	Rate	Unit	Appl Timing	Appl Code						
9	Wheat (at planting)					0	100	100	100	60.5	100
	Prefix	2 pt/a		PRE	A						
	Metribuzin	6 oz/a		PRE	A						
	Warrant	3 pt/a		POST	B						
	Enlist One	32 fl oz/a		POST	B						
	Roundup PowerMax 3	30 fl oz/a		POST	B						
	AMS	17 lb/100 gal		POST	B						
	LSD P=.05					.	5.0	0.9	.	7.79	5.2
	Standard Deviation					0.0	3.4	0.6	0.0	5.34	3.5
	CV					0.0	3.5	0.61	0.0	10.33	3.72

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Interseeded winter wheat in soybean

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 Study Director: Sprague, Stiles, Powell Sponsor Contact:
 Investigator (Creator): Christy Sprague

Pest Code	ANGR	CHEAL	ERICA	ANGR	CHEAL
Crop Type, Code					
Rating Date	Aug-15-2022	Aug-15-2022	Sep-29-2022	Sep-29-2022	Sep-29-2022
Rating Type	control	control	counts	counts	counts
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	0.5 m2, -, -	0.5 m2, -, -	0.5 m2, -, -
Trt-Eval Interval	56 DA-B	56 DA-B	101 DA-B	101 DA-B	101 DA-B
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Timing	Appl Code					
1	No Wheat					100	100	0	0	0
	Sharpen	1 fl oz/a		PRE	A					
	Warrant	3 pt/a		POST	B					
	Enlist One	32 fl oz/a		POST	B					
	Roundup PowerMax 3	30 fl oz/a		POST	B					
	AMS	17 lb/100 gal		POST	B					
2	Wheat (4 wk prior to planting)					98	95	0	1	1
	Sharpen	1 fl oz/a		PRE	A					
	Warrant	3 pt/a		POST	B					
	Enlist One	32 fl oz/a		POST	B					
	Roundup PowerMax 3	30 fl oz/a		POST	B					
	AMS	17 lb/100 gal		POST	B					
3	Wheat (at planting)					100	100	0	1	0
	Sharpen	1 fl oz/a		PRE	A					
	Warrant	3 pt/a		POST	B					
	Enlist One	32 fl oz/a		POST	B					
	Roundup PowerMax 3	30 fl oz/a		POST	B					
	AMS	17 lb/100 gal		POST	B					
4	No Wheat					100	100	1	0	0
	Warrant	3 pt/a		POST	B					
	Enlist One	32 fl oz/a		POST	B					
	Roundup PowerMax 3	30 fl oz/a		POST	B					
	AMS	17 lb/100 gal		POST	B					
5	Wheat (4 wk prior to planting)					100	95	8	0	1
	Warrant	3 pt/a		POST	B					
	Enlist One	32 fl oz/a		POST	B					
	Roundup PowerMax 3	30 fl oz/a		POST	B					
	AMS	17 lb/100 gal		POST	B					
6	Wheat (at planting)					100	99	1	0	0
	Warrant	3 pt/a		POST	B					
	Enlist One	32 fl oz/a		POST	B					
	Roundup PowerMax 3	30 fl oz/a		POST	B					
	AMS	17 lb/100 gal		POST	B					
7	No Wheat					100	100	0	0	0
	Prefix	2 pt/a		PRE	A					
	Metribuzin	6 oz/a		PRE	A					
	Warrant	3 pt/a		POST	B					
	Enlist One	32 fl oz/a		POST	B					
	Roundup PowerMax 3	30 fl oz/a		POST	B					
	AMS	17 lb/100 gal		POST	B					
8	Wheat (4 wk prior to planting)					100	100	0	0	0
	Prefix	2 pt/a		PRE	A					
	Metribuzin	6 oz/a		PRE	A					
	Warrant	3 pt/a		POST	B					
	Enlist One	32 fl oz/a		POST	B					
	Roundup PowerMax 3	30 fl oz/a		POST	B					
	AMS	17 lb/100 gal		POST	B					

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Michigan State University

Interseeded winter wheat in soybean

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 Protocol ID: SOY06-22 Location: Campus, T-14 Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sprague, Stiles, Powell Sponsor Contact:
 Investigator (Creator): Christy Sprague

Pest Code	ANGR	CHEAL	ERICA	ANGR	CHEAL
Crop Type, Code					
Rating Date	Aug-15-2022	Aug-15-2022	Sep-29-2022	Sep-29-2022	Sep-29-2022
Rating Type	control	control	counts	counts	counts
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	0.5 m2, -, -	0.5 m2, -, -	0.5 m2, -, -
Trt-Eval Interval	56 DA-B	56 DA-B	101 DA-B	101 DA-B	101 DA-B
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Timing	Appl Code	ANGR	CHEAL	ERICA	ANGR	CHEAL
9	Wheat (at planting)					100	100	0	0	0
	Prefix	2	pt/a	PRE	A					
	Metribuzin	6	oz/a	PRE	A					
	Warrant	3	pt/a	POST	B					
	Enlist One	32	fl oz/a	POST	B					
	Roundup PowerMax 3	30	fl oz/a	POST	B					
	AMS	17	lb/100 gal	POST	B					
	LSD P=.05					1.4	3.9	0.8	0.4	0.6
	Standard Deviation					1.0	2.7	0.5	0.3	0.4
	CV					0.96	2.69	49.65	180.28	158.75

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Michigan State University

Interseeded winter wheat in soybean

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 Protocol ID: SOY06-22 Location: Campus, T-14 Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sprague, Stiles, Powell Sponsor Contact:
 Investigator (Creator): Christy Sprague

Pest Code	WEEDS		
Crop Type, Code	C, GLXMA	C, GLXMA	
Rating Date	Sep-29-2022	Oct-5-2022	Oct-5-2022
Rating Type	biomass (g)	moisture	yield
Rating Unit/Min/Max	0.5 m2, -, -	%, 0, 100	bu/A, -, -
Trt-Eval Interval	101 DA-B	107 DA-B	107 DA-B
Number of Decimals	1	1	1

Trt No.	Treatment Name	Rate	Unit	Appl Timing	Appl Code			
1	No Wheat					0.0	11.3	60.2
	Sharpen	1 fl oz/a		PRE	A			
	Warrant	3 pt/a		POST	B			
	Enlist One	32 fl oz/a		POST	B			
	Roundup PowerMax 3	30 fl oz/a		POST	B			
	AMS	17 lb/100 gal		POST	B			
2	Wheat (4 wk prior to planting)					8.7	13.3	55.4
	Sharpen	1 fl oz/a		PRE	A			
	Warrant	3 pt/a		POST	B			
	Enlist One	32 fl oz/a		POST	B			
	Roundup PowerMax 3	30 fl oz/a		POST	B			
	AMS	17 lb/100 gal		POST	B			
3	Wheat (at planting)					0.6	11.2	55.8
	Sharpen	1 fl oz/a		PRE	A			
	Warrant	3 pt/a		POST	B			
	Enlist One	32 fl oz/a		POST	B			
	Roundup PowerMax 3	30 fl oz/a		POST	B			
	AMS	17 lb/100 gal		POST	B			
4	No Wheat					1.6	11.2	61.9
	Warrant	3 pt/a		POST	B			
	Enlist One	32 fl oz/a		POST	B			
	Roundup PowerMax 3	30 fl oz/a		POST	B			
	AMS	17 lb/100 gal		POST	B			
5	Wheat (4 wk prior to planting)					37.4	12.9	56.4
	Warrant	3 pt/a		POST	B			
	Enlist One	32 fl oz/a		POST	B			
	Roundup PowerMax 3	30 fl oz/a		POST	B			
	AMS	17 lb/100 gal		POST	B			
6	Wheat (at planting)					5.2	11.1	59.2
	Warrant	3 pt/a		POST	B			
	Enlist One	32 fl oz/a		POST	B			
	Roundup PowerMax 3	30 fl oz/a		POST	B			
	AMS	17 lb/100 gal		POST	B			
7	No Wheat					0.8	11.1	60.5
	Prefix	2 pt/a		PRE	A			
	Metribuzin	6 oz/a		PRE	A			
	Warrant	3 pt/a		POST	B			
	Enlist One	32 fl oz/a		POST	B			
	Roundup PowerMax 3	30 fl oz/a		POST	B			
	AMS	17 lb/100 gal		POST	B			
8	Wheat (4 wk prior to planting)					0.0	11.4	56.0
	Prefix	2 pt/a		PRE	A			
	Metribuzin	6 oz/a		PRE	A			
	Warrant	3 pt/a		POST	B			
	Enlist One	32 fl oz/a		POST	B			
	Roundup PowerMax 3	30 fl oz/a		POST	B			
	AMS	17 lb/100 gal		POST	B			

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 Study Director: Sprague, Stiles, Powell Sponsor Contact:
 Investigator (Creator): Christy Sprague

Pest Code	WEEDS		
Crop Type, Code	C, GLXMA	C, GLXMA	
Rating Date	Sep-29-2022	Oct-5-2022	Oct-5-2022
Rating Type	biomass (g)	moisture	yield
Rating Unit/Min/Max	0.5 m2, -, -	%, 0, 100	bu/A, -, -
Trt-Eval Interval	101 DA-B	107 DA-B	107 DA-B
Number of Decimals	1	1	1

Trt No.	Treatment Name	Rate	Unit	Appl Timing	Appl Code			
9	Wheat (at planting)					0.1	11.3	63.3
	Prefix	2 pt/a		PRE	A			
	Metribuzin	6 oz/a		PRE	A			
	Warrant	3 pt/a		POST	B			
	Enlist One	32 fl oz/a		POST	B			
	Roundup PowerMax 3	30 fl oz/a		POST	B			
	AMS	17 lb/100 gal		POST	B			
	LSD P=.05					6.25	1.49	7.48
	Standard Deviation					4.28	1.02	5.13
	CV					70.89	8.76	8.73