

Metribuzin tolerance to early- versus normal-planted soybean with two varieties

Trial ID: SOY02-25
 Conducted: Campus, C-12

Study Dir.: Sprague, Stiles
 Investigator: Christy Sprague

Planting Date:
Variety: AG20XF4, AG21XF2
Population: 150000 S/A
Soil Type: SCL sandy clay loam
Plot Size: 10 X 30 FT

Row Spacing: 30 "
No. of Reps: 4
% OM: 2.9
pH: 7.4
Study Design: Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plow and soil finished; spring soil finished.

Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	ANGR	annual grasses	mostly giant foxtail and barnyardgrass
2	CHEAL	common lambsquarters	Chenopodium album
3	AMBEL	common ragweed	Ambrosia artemisiifolia
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

	A	B	C	D
Application Timing:	PRE1	PRE2	POST1	POST2
Date Treated:	Apr-16-2025	May-19-2025	Jun-13-2025	Jun-30-2025
Time Treated:	9:30 AM	11:00 AM	1:45 PM	9:40 AM
% Cloud Cover:	70	100	76	21
Air Temp., Unit:	35 F	47 F	70 F	76 F
% Relative Humidity:	70	85	63	87
Wind Speed/Unit/Dir:	7 MPH NW	5 MPH NNE	6 MPH E	3 MPH S
Soil Temp, Unit:	42 F	56 F	71 F	82 F
Leaf Moist/Dew Presence (Y/N):	N	N	N	N
Soil Moist:	4	5	5	5

Crop Stage at Each Application

	A	B	C	D
Crop 1 Name:	GLXMA	GLXMA	GLXMA	GLXMA
Height:			2.5 "	10-14 " (12)
Stage:			V5	V6

Weed Stage at Each Application

	A	B	C	D
Weed 1 Name:	ANGR	ANGR	ANGR	ANGR
Height:			1-6 " (3.5)	3-12 " (8)
Stage:			2-6L	2-6L
Weed 2 Name:	CHEAL	CHEAL	CHEAL	CHEAL
Height:			1-6 " (3.5)	2-14 " (10)
Stage:			2-24L	6-20+L
Weed 3 Name:	AMBEL	AMBEL	AMBEL	AMBEL
Height:			0.5-8 " (5)	2-12 " (8)
Stage:			2-30L	4L-14L (10L)

Weed Density

	1	2	3
Date:	Jun-13-2025	Jun-13-2025	Jun-13-2025
Weed Name:	ANGR	CHEAL	AMBEL
Density:	3 FT2	5 FT2	3 FT2

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	19.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI
B	CUB	3.8 MPH	AIXR	11003	18.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI
C	CUB	3.8 MPH	AIXR	11003	24.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI
D	CUB	3.8 MPH	AIXR	11003	30.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI

Comments: Soybean varieties: AG20XF4, AG21XF2 Early planting date: 4/15/25 Normal planting date: 5/19/25

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Investigator: Christy Sprague

Rating Date					May-19-2025	May-19-2025	May-19-2025	May-19-2025	May-27-2025
Rating Type					injury	control	control	control	injury
Rating Unit					%	%	%	%	%
Crop Type, Code					C, GLXMA				C, GLXMA
Pest Code						ANGR	CHEAL	AMBEL	
Treatment Appl. Interval					33 DA-A	33 DA-A	33 DA-A	33 DA-A	41 DA-A
Number of Decimals					0	0	0	0	0
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing				
1	Early planted - AG20XF4					25	100	99	96
	Fierce EZ	6 fl oz/a	A	PRE1					26
	Liberty	32 fl oz/a	C	POST1					
	Roundup PowerMax	30 fl oz/a	C	POST1					
	AMS	17 lb/100 gal	C	POST1					
2	Early planted - AG21XF2					26	100	99	96
	Fierce EZ	6 fl oz/a	A	PRE1					25
	Liberty	32 fl oz/a	C	POST1					
	Roundup PowerMax	30 fl oz/a	C	POST1					
	AMS	17 lb/100 gal	C	POST1					
3	Early planted - AG20XF4					25	100	99	99
	Metribuzin	4 oz/a	A	PRE1					34
	Fierce EZ	6 fl oz/a	A	PRE1					
	Liberty	32 fl oz/a	C	POST1					
	Roundup PowerMax	30 fl oz/a	C	POST1					
	AMS	17 lb/100 gal	C	POST1					
4	Early planted - AG21XF2					29	100	99	98
	Metribuzin	4 oz/a	A	PRE1					29
	Fierce EZ	6 fl oz/a	A	PRE1					
	Liberty	32 fl oz/a	C	POST1					
	Roundup PowerMax	30 fl oz/a	C	POST1					
	AMS	17 lb/100 gal	C	POST1					
5	Normal planted - AG20XF4								
	Fierce EZ	6 fl oz/a	B	PRE2					
	Liberty	32 fl oz/a	D	POST2					
	Roundup PowerMax	30 fl oz/a	D	POST2					
	AMS	17 lb/100 gal	D	POST2					
6	Normal planted - AG21XF2								
	Fierce EZ	6 fl oz/a	B	PRE2					
	Liberty	32 fl oz/a	D	POST2					
	Roundup PowerMax	30 fl oz/a	D	POST2					
	AMS	17 lb/100 gal	D	POST2					
7	Normal planted - AG20XF4								
	Metribuzin	4 oz/a	B	PRE2					
	Fierce EZ	6 fl oz/a	B	PRE2					
	Liberty	32 fl oz/a	D	POST2					
	Roundup PowerMax	30 fl oz/a	D	POST2					
	AMS	17 lb/100 gal	D	POST2					
8	Normal planted - AG21XF2								
	Metribuzin	4 oz/a	B	PRE2					
	Fierce EZ	6 fl oz/a	B	PRE2					
	Liberty	32 fl oz/a	D	POST2					
	Roundup PowerMax	30 fl oz/a	D	POST2					
	AMS	17 lb/100 gal	D	POST2					
9	Early planted - AG20XF4					24	100	100	100
	Metribuzin	8 oz/a	A	PRE1					26
	Fierce EZ	6 fl oz/a	A	PRE1					
	Liberty	32 fl oz/a	C	POST1					
	Roundup PowerMax	30 fl oz/a	C	POST1					
	AMS	17 lb/100 gal	C	POST1					

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Rating Type					injury	control	control	control	injury
Rating Unit					%	%	%	%	%
Crop Type, Code					C, GLXMA				C, GLXMA
Pest Code						ANGR	CHEAL	AMBEL	
Treatment Appl. Interval					33 DA-A	33 DA-A	33 DA-A	33 DA-A	41 DA-A
Number of Decimals					0	0	0	0	0
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Appl Timing				
10	Early planted - AG21XF2					23	100	100	99
	Metribuzin	8 oz/a	A	PRE1					20
	Fierce EZ	6 fl oz/a	A	PRE1					
	Liberty	32 fl oz/a	C	POST1					
	Roundup PowerMax	30 fl oz/a	C	POST1					
	AMS	17 lb/100 gal	C	POST1					
11	Normal planted - AG20XF4								
	Metribuzin	8 oz/a	B	PRE2					
	Fierce EZ	6 fl oz/a	B	PRE2					
	Liberty	32 fl oz/a	D	POST2					
	Roundup PowerMax	30 fl oz/a	D	POST2					
	AMS	17 lb/100 gal	D	POST2					
12	Normal planted - AG21XF2								
	Metribuzin	8 oz/a	B	PRE2					
	Fierce EZ	6 fl oz/a	B	PRE2					
	Liberty	32 fl oz/a	D	POST2					
	Roundup PowerMax	30 fl oz/a	D	POST2					
	AMS	17 lb/100 gal	D	POST2					
13	Normal planted - AG20XF4								
	Metribuzin	12 oz/a	B	PRE2					
	Fierce EZ	6 fl oz/a	B	PRE2					
	Liberty	32 fl oz/a	D	POST2					
	Roundup PowerMax	30 fl oz/a	D	POST2					
	AMS	17 lb/100 gal	D	POST2					
14	Normal planted - AG21XF2								
	Metribuzin	12 oz/a	B	PRE2					
	Fierce EZ	6 fl oz/a	B	PRE2					
	Liberty	32 fl oz/a	D	POST2					
	Roundup PowerMax	30 fl oz/a	D	POST2					
	AMS	17 lb/100 gal	D	POST2					
15	Early planted - AG20XF4					25	100	100	100
	Metribuzin	12 oz/a	A	PRE1					31
	Fierce EZ	6 fl oz/a	A	PRE1					
	Liberty	32 fl oz/a	C	POST1					
	Roundup PowerMax	30 fl oz/a	C	POST1					
	AMS	17 lb/100 gal	C	POST1					
16	Early planted - AG21XF2					31	100	100	99
	Metribuzin	12 oz/a	A	PRE1					28
	Fierce EZ	6 fl oz/a	A	PRE1					
	Liberty	32 fl oz/a	C	POST1					
	Roundup PowerMax	30 fl oz/a	C	POST1					
	AMS	17 lb/100 gal	C	POST1					
17	Early planted - AG20XF4					28	100	100	100
	Metribuzin	16 oz/a	A	PRE1					38
	Fierce EZ	6 fl oz/a	A	PRE1					
	Liberty	32 fl oz/a	C	POST1					
	Roundup PowerMax	30 fl oz/a	C	POST1					
	AMS	17 lb/100 gal	C	POST1					
18	Early planted - AG21XF2					34	100	100	100
	Metribuzin	16 oz/a	A	PRE1					34
	Fierce EZ	6 fl oz/a	A	PRE1					
	Liberty	32 fl oz/a	C	POST1					
	Roundup PowerMax	30 fl oz/a	C	POST1					
	AMS	17 lb/100 gal	C	POST1					

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Investigator: Christy Sprague

Rating Date	May-19-2025	May-19-2025	May-19-2025	May-19-2025	May-27-2025
Rating Type	injury	control	control	control	injury
Rating Unit	%	%	%	%	%
Crop Type, Code	C, GLXMA				C, GLXMA
Pest Code		ANGR	CHEAL	AMBEL	
Treatment Appl. Interval	33 DA-A	33 DA-A	33 DA-A	33 DA-A	41 DA-A
Number of Decimals	0	0	0	0	0
Trt No.	Treatment Name	Rate Rate Unit	Appl Code	Appl Timing	
19	Normal planted - AG20XF4				
	Metribuzin	16 oz/a	B	PRE2	
	Fierce EZ	6 fl oz/a	B	PRE2	
	Liberty	32 fl oz/a	D	POST2	
	Roundup PowerMax	30 fl oz/a	D	POST2	
	AMS	17 lb/100 gal	D	POST2	
20	Normal planted - AG21XF2				
	Metribuzin	16 oz/a	B	PRE2	
	Fierce EZ	6 fl oz/a	B	PRE2	
	Liberty	32 fl oz/a	D	POST2	
	Roundup PowerMax	30 fl oz/a	D	POST2	
	AMS	17 lb/100 gal	D	POST2	
21	Normal planted - AG20XF4				
	Untreated				
22	Normal planted - AG21XF2				
	Untreated				
23	Early planted - AG20XF4				
	Untreated	0	0	0	0
24	Early planted - AG21XF2				
	Untreated	0	0	0	0
	LSD P=.05	6.9	.	1.3	3.6
	Standard Deviation	4.8	0.0	0.9	2.5
	CV	21.41	0.0	1.07	3.05

23.34

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Rating Date					May-27-2025	May-27-2025	May-27-2025	Jun-2-2025	Jun-2-2025	Jun-2-2025	
Rating Type					control	control	control	injury	control	control	
Rating Unit					%	%	%	%	%	%	
Crop Type, Code					C, GLXMA						
Pest Code					ANGR	CHEAL	AMBEL		ANGR	CHEAL	
Treatment Appl. Interval					41 DA-A	41 DA-A	41 DA-A	47 DA-A	47 DA-A	47 DA-A	
Number of Decimals					0	0	0	0	0	0	
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing						
1	Early planted - AG20XF4					100	99	88	25	100	95
	Fierce EZ	6 fl oz/a	A		PRE1						
	Liberty	32 fl oz/a	C		POST1						
	Roundup PowerMax	30 fl oz/a	C		POST1						
	AMS	17 lb/100 gal	C		POST1						
2	Early planted - AG21XF2					100	100	90	25	100	99
	Fierce EZ	6 fl oz/a	A		PRE1						
	Liberty	32 fl oz/a	C		POST1						
	Roundup PowerMax	30 fl oz/a	C		POST1						
	AMS	17 lb/100 gal	C		POST1						
3	Early planted - AG20XF4					100	99	96	25	100	99
	Metribuzin	4 oz/a	A		PRE1						
	Fierce EZ	6 fl oz/a	A		PRE1						
	Liberty	32 fl oz/a	C		POST1						
	Roundup PowerMax	30 fl oz/a	C		POST1						
	AMS	17 lb/100 gal	C		POST1						
4	Early planted - AG21XF2					100	100	94	25	100	98
	Metribuzin	4 oz/a	A		PRE1						
	Fierce EZ	6 fl oz/a	A		PRE1						
	Liberty	32 fl oz/a	C		POST1						
	Roundup PowerMax	30 fl oz/a	C		POST1						
	AMS	17 lb/100 gal	C		POST1						
5	Normal planted - AG20XF4										
	Fierce EZ	6 fl oz/a	B		PRE2						
	Liberty	32 fl oz/a	D		POST2						
	Roundup PowerMax	30 fl oz/a	D		POST2						
	AMS	17 lb/100 gal	D		POST2						
6	Normal planted - AG21XF2										
	Fierce EZ	6 fl oz/a	B		PRE2						
	Liberty	32 fl oz/a	D		POST2						
	Roundup PowerMax	30 fl oz/a	D		POST2						
	AMS	17 lb/100 gal	D		POST2						
7	Normal planted - AG20XF4										
	Metribuzin	4 oz/a	B		PRE2						
	Fierce EZ	6 fl oz/a	B		PRE2						
	Liberty	32 fl oz/a	D		POST2						
	Roundup PowerMax	30 fl oz/a	D		POST2						
	AMS	17 lb/100 gal	D		POST2						
8	Normal planted - AG21XF2										
	Metribuzin	4 oz/a	B		PRE2						
	Fierce EZ	6 fl oz/a	B		PRE2						
	Liberty	32 fl oz/a	D		POST2						
	Roundup PowerMax	30 fl oz/a	D		POST2						
	AMS	17 lb/100 gal	D		POST2						
9	Early planted - AG20XF4					100	100	99	20	100	100
	Metribuzin	8 oz/a	A		PRE1						
	Fierce EZ	6 fl oz/a	A		PRE1						
	Liberty	32 fl oz/a	C		POST1						
	Roundup PowerMax	30 fl oz/a	C		POST1						
	AMS	17 lb/100 gal	C		POST1						

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Rating Date					May-27-2025	May-27-2025	May-27-2025	Jun-2-2025	Jun-2-2025	Jun-2-2025
Rating Type					control	control	control	injury	control	control
Rating Unit					%	%	%	%	%	%
Crop Type, Code								C, GLXMA		
Pest Code					ANGR	CHEAL	AMBEL		ANGR	CHEAL
Treatment Appl. Interval					41 DA-A	41 DA-A	41 DA-A	47 DA-A	47 DA-A	47 DA-A
Number of Decimals					0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing					
10	Early planted - AG21XF2					100	100	98	19	100
	Metribuzin	8 oz/a		A	PRE1					
	Fierce EZ	6 fl oz/a		A	PRE1					
	Liberty	32 fl oz/a		C	POST1					
	Roundup PowerMax	30 fl oz/a		C	POST1					
	AMS	17 lb/100 gal		C	POST1					
11	Normal planted - AG20XF4									
	Metribuzin	8 oz/a		B	PRE2					
	Fierce EZ	6 fl oz/a		B	PRE2					
	Liberty	32 fl oz/a		D	POST2					
	Roundup PowerMax	30 fl oz/a		D	POST2					
	AMS	17 lb/100 gal		D	POST2					
12	Normal planted - AG21XF2									
	Metribuzin	8 oz/a		B	PRE2					
	Fierce EZ	6 fl oz/a		B	PRE2					
	Liberty	32 fl oz/a		D	POST2					
	Roundup PowerMax	30 fl oz/a		D	POST2					
	AMS	17 lb/100 gal		D	POST2					
13	Normal planted - AG20XF4									
	Metribuzin	12 oz/a		B	PRE2					
	Fierce EZ	6 fl oz/a		B	PRE2					
	Liberty	32 fl oz/a		D	POST2					
	Roundup PowerMax	30 fl oz/a		D	POST2					
	AMS	17 lb/100 gal		D	POST2					
14	Normal planted - AG21XF2									
	Metribuzin	12 oz/a		B	PRE2					
	Fierce EZ	6 fl oz/a		B	PRE2					
	Liberty	32 fl oz/a		D	POST2					
	Roundup PowerMax	30 fl oz/a		D	POST2					
	AMS	17 lb/100 gal		D	POST2					
15	Early planted - AG20XF4					100	100	100	26	100
	Metribuzin	12 oz/a		A	PRE1					
	Fierce EZ	6 fl oz/a		A	PRE1					
	Liberty	32 fl oz/a		C	POST1					
	Roundup PowerMax	30 fl oz/a		C	POST1					
	AMS	17 lb/100 gal		C	POST1					
16	Early planted - AG21XF2					100	100	100	24	100
	Metribuzin	12 oz/a		A	PRE1					
	Fierce EZ	6 fl oz/a		A	PRE1					
	Liberty	32 fl oz/a		C	POST1					
	Roundup PowerMax	30 fl oz/a		C	POST1					
	AMS	17 lb/100 gal		C	POST1					
17	Early planted - AG20XF4					100	100	100	31	100
	Metribuzin	16 oz/a		A	PRE1					
	Fierce EZ	6 fl oz/a		A	PRE1					
	Liberty	32 fl oz/a		C	POST1					
	Roundup PowerMax	30 fl oz/a		C	POST1					
	AMS	17 lb/100 gal		C	POST1					
18	Early planted - AG21XF2					100	100	100	28	100
	Metribuzin	16 oz/a		A	PRE1					
	Fierce EZ	6 fl oz/a		A	PRE1					
	Liberty	32 fl oz/a		C	POST1					
	Roundup PowerMax	30 fl oz/a		C	POST1					
	AMS	17 lb/100 gal		C	POST1					

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Rating Date				May-27-2025	May-27-2025	May-27-2025	Jun-2-2025	Jun-2-2025	Jun-2-2025	
Rating Type				control	control	control	injury	control	control	
Rating Unit				%	%	%	%	%	%	
Crop Type, Code				C, GLXMA						
Pest Code				ANGR	CHEAL	AMBEL		ANGR	CHEAL	
Treatment Appl. Interval				41 DA-A	41 DA-A	41 DA-A	47 DA-A	47 DA-A	47 DA-A	
Number of Decimals				0	0	0	0	0	0	
Trt No.	Treatment Name	Rate	Appl	Appl						
		Rate Unit	Code	Timing						
19	Normal planted - AG20XF4									
	Metribuzin	16 oz/a	B	PRE2						
	Fierce EZ	6 fl oz/a	B	PRE2						
	Liberty	32 fl oz/a	D	POST2						
	Roundup PowerMax	30 fl oz/a	D	POST2						
	AMS	17 lb/100 gal	D	POST2						
20	Normal planted - AG21XF2									
	Metribuzin	16 oz/a	B	PRE2						
	Fierce EZ	6 fl oz/a	B	PRE2						
	Liberty	32 fl oz/a	D	POST2						
	Roundup PowerMax	30 fl oz/a	D	POST2						
	AMS	17 lb/100 gal	D	POST2						
21	Normal planted - AG20XF4									
	Untreated									
22	Normal planted - AG21XF2									
	Untreated									
23	Early planted - AG20XF4				0	0	0	0	0	
	Untreated									
24	Early planted - AG21XF2				0	0	0	0	0	
	Untreated									
LSD P=.05					.	1.2	7.4	7.3	0.4	4.4
Standard Deviation					0.0	0.8	5.2	5.0	0.3	3.0
CV					0.0	0.97	6.43	24.46	0.35	3.69

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Rating Date					Jun-2-2025	Jun-13-2025	Jun-13-2025	Jun-13-2025	Jun-13-2025	Jun-17-2025
Rating Type					control	injury	control	control	control	injury
Rating Unit					%	%	%	%	%	%
Crop Type, Code						C, GLXMA				C, GLXMA
Pest Code					AMBEL		ANGR	CHEAL	AMBEL	
Treatment Appl. Interval					47 DA-A	25 DA-B	25 DA-B	25 DA-B	25 DA-B	29 DA-B
Number of Decimals					0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing					
1	Early planted - AG20XF4					89	6	98	95	78
	Fierce EZ	6 fl oz/a	A	PRE1						
	Liberty	32 fl oz/a	C	POST1						
	Roundup PowerMax	30 fl oz/a	C	POST1						
	AMS	17 lb/100 gal	C	POST1						
2	Early planted - AG21XF2					87	11	99	97	79
	Fierce EZ	6 fl oz/a	A	PRE1						
	Liberty	32 fl oz/a	C	POST1						
	Roundup PowerMax	30 fl oz/a	C	POST1						
	AMS	17 lb/100 gal	C	POST1						
3	Early planted - AG20XF4					92	9	100	97	83
	Metribuzin	4 oz/a	A	PRE1						
	Fierce EZ	6 fl oz/a	A	PRE1						
	Liberty	32 fl oz/a	C	POST1						
	Roundup PowerMax	30 fl oz/a	C	POST1						
	AMS	17 lb/100 gal	C	POST1						
4	Early planted - AG21XF2					90	17	99	98	81
	Metribuzin	4 oz/a	A	PRE1						
	Fierce EZ	6 fl oz/a	A	PRE1						
	Liberty	32 fl oz/a	C	POST1						
	Roundup PowerMax	30 fl oz/a	C	POST1						
	AMS	17 lb/100 gal	C	POST1						
5	Normal planted - AG20XF4						0	100	97	93
	Fierce EZ	6 fl oz/a	B	PRE2						3
	Liberty	32 fl oz/a	D	POST2						
	Roundup PowerMax	30 fl oz/a	D	POST2						
	AMS	17 lb/100 gal	D	POST2						
6	Normal planted - AG21XF2						0	100	99	91
	Fierce EZ	6 fl oz/a	B	PRE2						3
	Liberty	32 fl oz/a	D	POST2						
	Roundup PowerMax	30 fl oz/a	D	POST2						
	AMS	17 lb/100 gal	D	POST2						
7	Normal planted - AG20XF4						1	100	99	96
	Metribuzin	4 oz/a	B	PRE2						4
	Fierce EZ	6 fl oz/a	B	PRE2						
	Liberty	32 fl oz/a	D	POST2						
	Roundup PowerMax	30 fl oz/a	D	POST2						
	AMS	17 lb/100 gal	D	POST2						
8	Normal planted - AG21XF2						0	100	100	98
	Metribuzin	4 oz/a	B	PRE2						3
	Fierce EZ	6 fl oz/a	B	PRE2						
	Liberty	32 fl oz/a	D	POST2						
	Roundup PowerMax	30 fl oz/a	D	POST2						
	AMS	17 lb/100 gal	D	POST2						
9	Early planted - AG20XF4					96	4	99	99	90
	Metribuzin	8 oz/a	A	PRE1						
	Fierce EZ	6 fl oz/a	A	PRE1						
	Liberty	32 fl oz/a	C	POST1						
	Roundup PowerMax	30 fl oz/a	C	POST1						
	AMS	17 lb/100 gal	C	POST1						

Could not calculate LSD (% mean diff) or mean separation letters for columns 2,6,26 because error variance is 0.
Mean separation letters are 'na' (not applicable) when error variance is 0

Michigan State University

Metribuzin tolerance to early- versus normal-planted soybean with two varieties

Trial ID: SOY02-25

Protocol ID: SOY02-25 Location: Campus, C-12 Trial Year: 2025

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date					Jun-2-2025	Jun-13-2025	Jun-13-2025	Jun-13-2025	Jun-13-2025	Jun-17-2025
Rating Type					control	injury	control	control	control	injury
Rating Unit					%	%	%	%	%	%
Crop Type, Code						C, GLXMA				C, GLXMA
Pest Code					AMBEL		ANGR	CHEAL	AMBEL	
Treatment Appl. Interval					47 DA-A	25 DA-B	25 DA-B	25 DA-B	25 DA-B	29 DA-B
Number of Decimals					0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Appl Timing					
10	Early planted - AG21XF2					95	7	99	96	88
	Metribuzin	8 oz/a		A	PRE1					
	Fierce EZ	6 fl oz/a		A	PRE1					
	Liberty	32 fl oz/a		C	POST1					
	Roundup PowerMax	30 fl oz/a		C	POST1					
	AMS	17 lb/100 gal		C	POST1					
11	Normal planted - AG20XF4						3	100	99	99
	Metribuzin	8 oz/a		B	PRE2					3
	Fierce EZ	6 fl oz/a		B	PRE2					
	Liberty	32 fl oz/a		D	POST2					
	Roundup PowerMax	30 fl oz/a		D	POST2					
	AMS	17 lb/100 gal		D	POST2					
12	Normal planted - AG21XF2						0	100	100	99
	Metribuzin	8 oz/a		B	PRE2					2
	Fierce EZ	6 fl oz/a		B	PRE2					
	Liberty	32 fl oz/a		D	POST2					
	Roundup PowerMax	30 fl oz/a		D	POST2					
	AMS	17 lb/100 gal		D	POST2					
13	Normal planted - AG20XF4						3	100	100	100
	Metribuzin	12 oz/a		B	PRE2					6
	Fierce EZ	6 fl oz/a		B	PRE2					
	Liberty	32 fl oz/a		D	POST2					
	Roundup PowerMax	30 fl oz/a		D	POST2					
	AMS	17 lb/100 gal		D	POST2					
14	Normal planted - AG21XF2						2	100	100	100
	Metribuzin	12 oz/a		B	PRE2					3
	Fierce EZ	6 fl oz/a		B	PRE2					
	Liberty	32 fl oz/a		D	POST2					
	Roundup PowerMax	30 fl oz/a		D	POST2					
	AMS	17 lb/100 gal		D	POST2					
15	Early planted - AG20XF4					99	11	100	100	96
	Metribuzin	12 oz/a		A	PRE1					
	Fierce EZ	6 fl oz/a		A	PRE1					
	Liberty	32 fl oz/a		C	POST1					
	Roundup PowerMax	30 fl oz/a		C	POST1					
	AMS	17 lb/100 gal		C	POST1					
16	Early planted - AG21XF2					99	17	100	99	95
	Metribuzin	12 oz/a		A	PRE1					
	Fierce EZ	6 fl oz/a		A	PRE1					
	Liberty	32 fl oz/a		C	POST1					
	Roundup PowerMax	30 fl oz/a		C	POST1					
	AMS	17 lb/100 gal		C	POST1					
17	Early planted - AG20XF4					99	11	100	100	99
	Metribuzin	16 oz/a		A	PRE1					
	Fierce EZ	6 fl oz/a		A	PRE1					
	Liberty	32 fl oz/a		C	POST1					
	Roundup PowerMax	30 fl oz/a		C	POST1					
	AMS	17 lb/100 gal		C	POST1					
18	Early planted - AG21XF2					99	20	99	100	96
	Metribuzin	16 oz/a		A	PRE1					
	Fierce EZ	6 fl oz/a		A	PRE1					
	Liberty	32 fl oz/a		C	POST1					
	Roundup PowerMax	30 fl oz/a		C	POST1					
	AMS	17 lb/100 gal		C	POST1					

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Mean separation letters are 'na' (not applicable) when error variance is 0

Michigan State University

Metribuzin tolerance to early- versus normal-planted soybean with two varieties

Trial ID: SOY02-25

Protocol ID: SOY02-25 Location: Campus, C-12 Trial Year: 2025

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Jun-2-2025	Jun-13-2025	Jun-13-2025	Jun-13-2025	Jun-13-2025	Jun-17-2025			
Rating Type	control	injury	control	control	control	injury			
Rating Unit	%	%	%	%	%	%			
Crop Type, Code	C, GLXMA					C, GLXMA			
Pest Code	AMBEL		ANGR	CHEAL	AMBEL				
Treatment Appl. Interval	47 DA-A	25 DA-B	25 DA-B	25 DA-B	25 DA-B	29 DA-B			
Number of Decimals	0	0	0	0	0	0			
Trt	Treatment	Rate	Appl	Appl					
No.	Name	Rate Unit	Code	Timing					
19	Normal planted - AG20XF4				1	100	100	100	6
	Metribuzin	16 oz/a	B	PRE2					
	Fierce EZ	6 fl oz/a	B	PRE2					
	Liberty	32 fl oz/a	D	POST2					
	Roundup PowerMax	30 fl oz/a	D	POST2					
	AMS	17 lb/100 gal	D	POST2					
20	Normal planted - AG21XF2				0	100	100	100	4
	Metribuzin	16 oz/a	B	PRE2					
	Fierce EZ	6 fl oz/a	B	PRE2					
	Liberty	32 fl oz/a	D	POST2					
	Roundup PowerMax	30 fl oz/a	D	POST2					
	AMS	17 lb/100 gal	D	POST2					
21	Normal planted - AG20XF4				0	0	0	0	0
	Untreated								
22	Normal planted - AG21XF2				0	0	0	0	0
	Untreated								
23	Early planted - AG20XF4	0	0	0	0	0	0		
	Untreated								
24	Early planted - AG21XF2	0	0	0	0	0	0		
	Untreated								
LSD P=.05		6.9	5.2	1.4	3.5	5.4	4.3		
Standard Deviation		4.8	3.7	1.0	2.5	3.8	3.0		
CV		6.11	72.48	1.2	3.0	4.93	98.14		

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Michigan State University

Metribuzin tolerance to early- versus normal-planted soybean with two varieties

Trial ID: SOY02-25

Protocol ID: SOY02-25 Location: Campus, C-12 Trial Year: 2025

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date					Jun-17-2025	Jun-17-2025	Jun-17-2025	Jun-30-2025	Jun-30-2025	Jun-30-2025	
Rating Type					control	control	control	injury	control	control	
Rating Unit					%	%	%	%	%	%	
Crop Type, Code								C, GLXMA			
Pest Code					ANGR	CHEAL	AMBEL		ANGR	CHEAL	
Treatment Appl. Interval					29 DA-B	29 DA-B	29 DA-B	0 DA-D	0 DA-D	0 DA-D	
Number of Decimals					0	0	0	0	0	0	
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing						
1	Early planted - AG20XF4							0	99	100	
	Fierce EZ	6 fl oz/a	A	PRE1							
	Liberty	32 fl oz/a	C	POST1							
	Roundup PowerMax	30 fl oz/a	C	POST1							
	AMS	17 lb/100 gal	C	POST1							
2	Early planted - AG21XF2							0	99	100	
	Fierce EZ	6 fl oz/a	A	PRE1							
	Liberty	32 fl oz/a	C	POST1							
	Roundup PowerMax	30 fl oz/a	C	POST1							
	AMS	17 lb/100 gal	C	POST1							
3	Early planted - AG20XF4							0	97	100	
	Metribuzin	4 oz/a	A	PRE1							
	Fierce EZ	6 fl oz/a	A	PRE1							
	Liberty	32 fl oz/a	C	POST1							
	Roundup PowerMax	30 fl oz/a	C	POST1							
	AMS	17 lb/100 gal	C	POST1							
4	Early planted - AG21XF2							0	99	100	
	Metribuzin	4 oz/a	A	PRE1							
	Fierce EZ	6 fl oz/a	A	PRE1							
	Liberty	32 fl oz/a	C	POST1							
	Roundup PowerMax	30 fl oz/a	C	POST1							
	AMS	17 lb/100 gal	C	POST1							
5	Normal planted - AG20XF4					95	90	83	0	91	86
	Fierce EZ	6 fl oz/a	B	PRE2							
	Liberty	32 fl oz/a	D	POST2							
	Roundup PowerMax	30 fl oz/a	D	POST2							
	AMS	17 lb/100 gal	D	POST2							
6	Normal planted - AG21XF2					93	86	80	1	90	85
	Fierce EZ	6 fl oz/a	B	PRE2							
	Liberty	32 fl oz/a	D	POST2							
	Roundup PowerMax	30 fl oz/a	D	POST2							
	AMS	17 lb/100 gal	D	POST2							
7	Normal planted - AG20XF4					96	98	85	4	90	96
	Metribuzin	4 oz/a	B	PRE2							
	Fierce EZ	6 fl oz/a	B	PRE2							
	Liberty	32 fl oz/a	D	POST2							
	Roundup PowerMax	30 fl oz/a	D	POST2							
	AMS	17 lb/100 gal	D	POST2							
8	Normal planted - AG21XF2					99	99	92	4	86	98
	Metribuzin	4 oz/a	B	PRE2							
	Fierce EZ	6 fl oz/a	B	PRE2							
	Liberty	32 fl oz/a	D	POST2							
	Roundup PowerMax	30 fl oz/a	D	POST2							
	AMS	17 lb/100 gal	D	POST2							
9	Early planted - AG20XF4								0	99	100
	Metribuzin	8 oz/a	A	PRE1							
	Fierce EZ	6 fl oz/a	A	PRE1							
	Liberty	32 fl oz/a	C	POST1							
	Roundup PowerMax	30 fl oz/a	C	POST1							
	AMS	17 lb/100 gal	C	POST1							

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Michigan State University

Metribuzin tolerance to early- versus normal-planted soybean with two varieties

Trial ID: SOY02-25

Protocol ID: SOY02-25 Location: Campus, C-12 Trial Year: 2025

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date					Jun-17-2025	Jun-17-2025	Jun-17-2025	Jun-30-2025	Jun-30-2025	Jun-30-2025	
Rating Type					control	control	control	injury	control	control	
Rating Unit					%	%	%	%	%	%	
Crop Type, Code					C, GLXMA						
Pest Code					ANGR	CHEAL	AMBEL		ANGR	CHEAL	
Treatment Appl. Interval					29 DA-B	29 DA-B	29 DA-B	0 DA-D	0 DA-D	0 DA-D	
Number of Decimals					0	0	0	0	0	0	
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing						
10	Early planted - AG21XF2							0	100	100	
	Metribuzin	8 oz/a		A	PRE1						
	Fierce EZ	6 fl oz/a		A	PRE1						
	Liberty	32 fl oz/a		C	POST1						
	Roundup PowerMax	30 fl oz/a		C	POST1						
	AMS	17 lb/100 gal		C	POST1						
11	Normal planted - AG20XF4					99	100	95	3	94	100
	Metribuzin	8 oz/a		B	PRE2						
	Fierce EZ	6 fl oz/a		B	PRE2						
	Liberty	32 fl oz/a		D	POST2						
	Roundup PowerMax	30 fl oz/a		D	POST2						
	AMS	17 lb/100 gal		D	POST2						
12	Normal planted - AG21XF2					99	100	92	2	90	98
	Metribuzin	8 oz/a		B	PRE2						
	Fierce EZ	6 fl oz/a		B	PRE2						
	Liberty	32 fl oz/a		D	POST2						
	Roundup PowerMax	30 fl oz/a		D	POST2						
	AMS	17 lb/100 gal		D	POST2						
13	Normal planted - AG20XF4					100	99	99	6	97	99
	Metribuzin	12 oz/a		B	PRE2						
	Fierce EZ	6 fl oz/a		B	PRE2						
	Liberty	32 fl oz/a		D	POST2						
	Roundup PowerMax	30 fl oz/a		D	POST2						
	AMS	17 lb/100 gal		D	POST2						
14	Normal planted - AG21XF2					100	99	100	4	97	99
	Metribuzin	12 oz/a		B	PRE2						
	Fierce EZ	6 fl oz/a		B	PRE2						
	Liberty	32 fl oz/a		D	POST2						
	Roundup PowerMax	30 fl oz/a		D	POST2						
	AMS	17 lb/100 gal		D	POST2						
15	Early planted - AG20XF4								0	100	100
	Metribuzin	12 oz/a		A	PRE1						
	Fierce EZ	6 fl oz/a		A	PRE1						
	Liberty	32 fl oz/a		C	POST1						
	Roundup PowerMax	30 fl oz/a		C	POST1						
	AMS	17 lb/100 gal		C	POST1						
16	Early planted - AG21XF2								1	98	100
	Metribuzin	12 oz/a		A	PRE1						
	Fierce EZ	6 fl oz/a		A	PRE1						
	Liberty	32 fl oz/a		C	POST1						
	Roundup PowerMax	30 fl oz/a		C	POST1						
	AMS	17 lb/100 gal		C	POST1						
17	Early planted - AG20XF4								0	100	100
	Metribuzin	16 oz/a		A	PRE1						
	Fierce EZ	6 fl oz/a		A	PRE1						
	Liberty	32 fl oz/a		C	POST1						
	Roundup PowerMax	30 fl oz/a		C	POST1						
	AMS	17 lb/100 gal		C	POST1						
18	Early planted - AG21XF2								3	98	100
	Metribuzin	16 oz/a		A	PRE1						
	Fierce EZ	6 fl oz/a		A	PRE1						
	Liberty	32 fl oz/a		C	POST1						
	Roundup PowerMax	30 fl oz/a		C	POST1						
	AMS	17 lb/100 gal		C	POST1						

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Michigan State University

Metribuzin tolerance to early- versus normal-planted soybean with two varieties

Trial ID: SOY02-25

Protocol ID: SOY02-25 Location: Campus, C-12 Trial Year: 2025

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date					Jun-17-2025	Jun-17-2025	Jun-17-2025	Jun-30-2025	Jun-30-2025	Jun-30-2025	
Rating Type					control	control	control	injury	control	control	
Rating Unit					%	%	%	%	%	%	
Crop Type, Code								C, GLXMA			
Pest Code					ANGR	CHEAL	AMBEL		ANGR	CHEAL	
Treatment Appl. Interval					29 DA-B	29 DA-B	29 DA-B	0 DA-D	0 DA-D	0 DA-D	
Number of Decimals					0	0	0	0	0	0	
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing						
19	Normal planted - AG20XF4					99	100	99	6	95	100
	Metribuzin	16 oz/a	B	PRE2							
	Fierce EZ	6 fl oz/a	B	PRE2							
	Liberty	32 fl oz/a	D	POST2							
	Roundup PowerMax	30 fl oz/a	D	POST2							
	AMS	17 lb/100 gal	D	POST2							
20	Normal planted - AG21XF2					100	100	100	6	96	100
	Metribuzin	16 oz/a	B	PRE2							
	Fierce EZ	6 fl oz/a	B	PRE2							
	Liberty	32 fl oz/a	D	POST2							
	Roundup PowerMax	30 fl oz/a	D	POST2							
	AMS	17 lb/100 gal	D	POST2							
21	Normal planted - AG20XF4					0	0	0	0	0	0
	Untreated										
22	Normal planted - AG21XF2					0	0	0	0	0	0
	Untreated										
23	Early planted - AG20XF4								0	0	0
	Untreated										
24	Early planted - AG21XF2								0	0	0
	Untreated										
	LSD P=.05					3.8	4.5	5.4	4.1	5.1	4.5
	Standard Deviation					2.7	3.1	3.8	2.9	3.6	3.2
	CV					3.28	3.86	4.88	173.94	4.5	3.87

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Mean separation letters are 'na' (not applicable) when error variance is 0

Michigan State University

Metribuzin tolerance to early- versus normal-planted soybean with two varieties

Trial ID: SOY02-25

Protocol ID: SOY02-25 Location: Campus, C-12 Trial Year: 2025

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date					Jun-30-2025	Oct-3-2025	Oct-3-2025	Oct-3-2025	Oct-2-2025	Oct-2-2025
Rating Type					control	control	control	control	moisture	yield
Rating Unit					%	%	%	%	%	bu/A
Crop Type, Code									C, GLXMA	C, GLXMA
Pest Code					AMBEL	ANGR	CHEAL	AMBEL		
Treatment Appl. Interval					0 DA-D	95 DA-D	95 DA-D	95 DA-D		@13%M
Number of Decimals					0	0	0	0	1	1
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing					
1	Early planted - AG20XF4					98	95	100	95	10.1
	Fierce EZ	6 fl oz/a	A	PRE1						52.8
	Liberty	32 fl oz/a	C	POST1						
	Roundup PowerMax	30 fl oz/a	C	POST1						
	AMS	17 lb/100 gal	C	POST1						
2	Early planted - AG21XF2					99	93	100	95	9.9
	Fierce EZ	6 fl oz/a	A	PRE1						46.8
	Liberty	32 fl oz/a	C	POST1						
	Roundup PowerMax	30 fl oz/a	C	POST1						
	AMS	17 lb/100 gal	C	POST1						
3	Early planted - AG20XF4					98	93	100	96	10.0
	Metribuzin	4 oz/a	A	PRE1						46.1
	Fierce EZ	6 fl oz/a	A	PRE1						
	Liberty	32 fl oz/a	C	POST1						
	Roundup PowerMax	30 fl oz/a	C	POST1						
	AMS	17 lb/100 gal	C	POST1						
4	Early planted - AG21XF2					98	92	100	95	9.7
	Metribuzin	4 oz/a	A	PRE1						47.9
	Fierce EZ	6 fl oz/a	A	PRE1						
	Liberty	32 fl oz/a	C	POST1						
	Roundup PowerMax	30 fl oz/a	C	POST1						
	AMS	17 lb/100 gal	C	POST1						
5	Normal planted - AG20XF4					73	100	100	98	9.9
	Fierce EZ	6 fl oz/a	B	PRE2						49.3
	Liberty	32 fl oz/a	D	POST2						
	Roundup PowerMax	30 fl oz/a	D	POST2						
	AMS	17 lb/100 gal	D	POST2						
6	Normal planted - AG21XF2					74	99	100	93	9.9
	Fierce EZ	6 fl oz/a	B	PRE2						45.5
	Liberty	32 fl oz/a	D	POST2						
	Roundup PowerMax	30 fl oz/a	D	POST2						
	AMS	17 lb/100 gal	D	POST2						
7	Normal planted - AG20XF4					80	97	100	96	10.0
	Metribuzin	4 oz/a	B	PRE2						47.8
	Fierce EZ	6 fl oz/a	B	PRE2						
	Liberty	32 fl oz/a	D	POST2						
	Roundup PowerMax	30 fl oz/a	D	POST2						
	AMS	17 lb/100 gal	D	POST2						
8	Normal planted - AG21XF2					78	100	100	99	9.8
	Metribuzin	4 oz/a	B	PRE2						47.9
	Fierce EZ	6 fl oz/a	B	PRE2						
	Liberty	32 fl oz/a	D	POST2						
	Roundup PowerMax	30 fl oz/a	D	POST2						
	AMS	17 lb/100 gal	D	POST2						
9	Early planted - AG20XF4					100	97	100	100	10.1
	Metribuzin	8 oz/a	A	PRE1						55.8
	Fierce EZ	6 fl oz/a	A	PRE1						
	Liberty	32 fl oz/a	C	POST1						
	Roundup PowerMax	30 fl oz/a	C	POST1						
	AMS	17 lb/100 gal	C	POST1						

Could not calculate LSD (% mean diff) or mean separation letters for columns 2,6,26 because error variance is 0.
Mean separation letters are 'na' (not applicable) when error variance is 0

Michigan State University

Metribuzin tolerance to early- versus normal-planted soybean with two varieties

Trial ID: SOY02-25

Protocol ID: SOY02-25 Location: Campus, C-12 Trial Year: 2025

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date					Jun-30-2025	Oct-3-2025	Oct-3-2025	Oct-3-2025	Oct-2-2025	Oct-2-2025
Rating Type					control	control	control	control	moisture	yield
Rating Unit					%	%	%	%	%	bu/A
Crop Type, Code									C, GLXMA	C, GLXMA
Pest Code					AMBEL	ANGR	CHEAL	AMBEL		
Treatment Appl. Interval					0 DA-D	95 DA-D	95 DA-D	95 DA-D		@13%M
Number of Decimals					0	0	0	0	1	1
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Appl Timing					
10	Early planted - AG21XF2					100	98	100	99	9.9
	Metribuzin	8 oz/a	A	PRE1						54.9
	Fierce EZ	6 fl oz/a	A	PRE1						
	Liberty	32 fl oz/a	C	POST1						
	Roundup PowerMax	30 fl oz/a	C	POST1						
	AMS	17 lb/100 gal	C	POST1						
11	Normal planted - AG20XF4					86	100	100	100	9.9
	Metribuzin	8 oz/a	B	PRE2						51.9
	Fierce EZ	6 fl oz/a	B	PRE2						
	Liberty	32 fl oz/a	D	POST2						
	Roundup PowerMax	30 fl oz/a	D	POST2						
	AMS	17 lb/100 gal	D	POST2						
12	Normal planted - AG21XF2					86	100	100	100	9.8
	Metribuzin	8 oz/a	B	PRE2						51.3
	Fierce EZ	6 fl oz/a	B	PRE2						
	Liberty	32 fl oz/a	D	POST2						
	Roundup PowerMax	30 fl oz/a	D	POST2						
	AMS	17 lb/100 gal	D	POST2						
13	Normal planted - AG20XF4					94	100	100	100	10.0
	Metribuzin	12 oz/a	B	PRE2						47.1
	Fierce EZ	6 fl oz/a	B	PRE2						
	Liberty	32 fl oz/a	D	POST2						
	Roundup PowerMax	30 fl oz/a	D	POST2						
	AMS	17 lb/100 gal	D	POST2						
14	Normal planted - AG21XF2					94	100	100	100	9.8
	Metribuzin	12 oz/a	B	PRE2						46.3
	Fierce EZ	6 fl oz/a	B	PRE2						
	Liberty	32 fl oz/a	D	POST2						
	Roundup PowerMax	30 fl oz/a	D	POST2						
	AMS	17 lb/100 gal	D	POST2						
15	Early planted - AG20XF4					100	93	100	100	10.0
	Metribuzin	12 oz/a	A	PRE1						50.8
	Fierce EZ	6 fl oz/a	A	PRE1						
	Liberty	32 fl oz/a	C	POST1						
	Roundup PowerMax	30 fl oz/a	C	POST1						
	AMS	17 lb/100 gal	C	POST1						
16	Early planted - AG21XF2					99	92	100	97	9.8
	Metribuzin	12 oz/a	A	PRE1						49.0
	Fierce EZ	6 fl oz/a	A	PRE1						
	Liberty	32 fl oz/a	C	POST1						
	Roundup PowerMax	30 fl oz/a	C	POST1						
	AMS	17 lb/100 gal	C	POST1						
17	Early planted - AG20XF4					100	95	100	100	10.1
	Metribuzin	16 oz/a	A	PRE1						50.3
	Fierce EZ	6 fl oz/a	A	PRE1						
	Liberty	32 fl oz/a	C	POST1						
	Roundup PowerMax	30 fl oz/a	C	POST1						
	AMS	17 lb/100 gal	C	POST1						
18	Early planted - AG21XF2					100	93	100	97	9.9
	Metribuzin	16 oz/a	A	PRE1						50.3
	Fierce EZ	6 fl oz/a	A	PRE1						
	Liberty	32 fl oz/a	C	POST1						
	Roundup PowerMax	30 fl oz/a	C	POST1						
	AMS	17 lb/100 gal	C	POST1						

Could not calculate LSD (% mean diff) or mean separation letters for columns 2,6,26 because error variance is 0.
Mean separation letters are 'na' (not applicable) when error variance is 0

Michigan State University

Metribuzin tolerance to early- versus normal-planted soybean with two varieties

Trial ID: SOY02-25

Protocol ID: SOY02-25 Location: Campus, C-12 Trial Year: 2025

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date					Jun-30-2025	Oct-3-2025	Oct-3-2025	Oct-3-2025	Oct-2-2025	Oct-2-2025	
Rating Type					control	control	control	control	moisture	yield	
Rating Unit					%	%	%	%	%	bu/A	
Crop Type, Code									C, GLXMA	C, GLXMA	
Pest Code					AMBEL	ANGR	CHEAL	AMBEL			
Treatment Appl. Interval					0 DA-D	95 DA-D	95 DA-D	95 DA-D		@13%M	
Number of Decimals					0	0	0	0	1	1	
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing						
19	Normal planted - AG20XF4					98	100	100	100	9.8	51.0
	Metribuzin	16 oz/a	B	PRE2							
	Fierce EZ	6 fl oz/a	B	PRE2							
	Liberty	32 fl oz/a	D	POST2							
	Roundup PowerMax	30 fl oz/a	D	POST2							
	AMS	17 lb/100 gal	D	POST2							
20	Normal planted - AG21XF2					98	100	100	100	9.6	45.9
	Metribuzin	16 oz/a	B	PRE2							
	Fierce EZ	6 fl oz/a	B	PRE2							
	Liberty	32 fl oz/a	D	POST2							
	Roundup PowerMax	30 fl oz/a	D	POST2							
	AMS	17 lb/100 gal	D	POST2							
21	Normal planted - AG20XF4					0	0	0	0	9.7	13.0
	Untreated										
22	Normal planted - AG21XF2					0	0	0	0	9.8	12.7
	Untreated										
23	Early planted - AG20XF4					0	0	0	0	9.7	10.3
	Untreated										
24	Early planted - AG21XF2					0	0	0	0	9.6	9.5
	Untreated										
	LSD P=.05					4.1	4.8	.	5.2	0.34	7.73
	Standard Deviation					2.9	3.4	0.0	3.7	0.24	5.48
	CV					3.78	4.25	0.0	4.51	2.41	12.71

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