

Control of Wild Garlic and other Weeds in No-Till Wheat.

Project Code: 03-1-W130 Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
 Trial Status: Final Updated: 11-19-03

Objective:

Evaluate various herbicides and application timings for control of wild garlic and winter annual weeds in no-till wheat production.

Weed Code	Common Name	Scientific Name
1.	ALLVI garlic, wild	Allium vineale L.
2.	POAAN bluegrass, annual	Poa annua L.
3.	LAMAM henbit	Lamium amplexicaule L.

Crop 1: TRZAW wheat, winter Variety: See note
 Planting Method: Seeded Planting Date: 10-15-02
 Rate: 110 lb seed/A Depth: 1.5 IN
 Row Spacing: 7.5 IN

Plot Width, Unit: 10 FT Plot Length, Unit: 28 FT Reps: 3
 Tillage Type: No-Till Study Design: Randomized complete block
 Previous Crop, Year: GLXMA, 2002

Field Prep./Maintenance: N 30 LB/A, P205 46 LB/A, K20 60 LB/A applied 10-14-02,
 N 80 LB/A, P205 0 LB/A, K20 0 LB/A applied 1-27-03.

Soil Name: Weir % OM: 1.8 pH: 5.7 CEC: 10
 Texture: Silt loam Fert. Level: P1: 98 LB/A, K: 258 LB/A

APPLICATION DESCRIPTION

	A	B	C
Application Date:	10-18-02	11-20-02	3-24-03
Time of Day:	9:00	9:00	10:00
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	FALL	SPRING
Applic. Placement:	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	52 F	46 F	62 F
% Relative Humidity:	84	96	61
Wind Velocity, Unit:	5 MPH	0 MPH	5 MPH
Soil Moisture:	NORMAL	NORMAL	NORMAL

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	TRZAW NA	TRZAW F2	TRZAW F4
Height, Unit:	NA NA	2-3 IN	3-5 IN

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code:	ALLVI	ALLVI	ALLVI
Stage(leaves):	3-4	3-4	3-4
Height(inches):	4-8	4-8	3-5
Density:	Medium	Medium	Medium
Weed 2 Code:	POAAN	POAAN	POAAN
Stage(leaves):	3-4	3-4	3-5
Height(inches):	1-2	1-2	1-3
Density:	Medium	Medium	Medium
Weed 3 Code:	LAMAM	LAMAM	LAMAM
Stage(leaves):	10+	10+	10+
Height(inches):	0-1	0-1	2-4
Density:	Medium	Medium	Medium

APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	40 PSI	40 PSI	40 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan
Nozzle Size:	8002	8002	8002
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	20 GPA	20 GPA	20 GPA

NOTES:

Wheat varieties are Pioneer 25R78 and AgriPro 110 CL.
 Harvested wheat Jul-01-03, (7) 7.5 inch rows by 25 ft and
 doublecrop soybean Nov-03-03, (2) 30 inch rows by 27 ft.

Control of Wild Garlic and other Weeds in No-Till Wheat.

Project Code: 03-1-W130 Location: Belleville Research Center

Weed Code																			
Crop Code																			
Rating Data Type																			
Rating Unit																			
Rating Date																			
Trt-Eval Interval																			
		TRZAW	TRZAW	TRZAW	GLXMA	TRZAW	TRZAW	TRZAW	TRZAW	TRZAW	TRZAW								
		Moisture	Test wt.	Yield	Yield	Injury	Injury	Injury	Injury	Injury	Injury								
		Percent	lb/bu	bu/A	bu/A	Percent	Percent	Percent	Percent	Percent	Percent								
		7-1-03	7-1-03	7-1-03	11-3-03			3-24-03	4-7-03	4-21-03	5-19-03								
						14 DAT	28 DAT	0 DA-C	14 DA-C	28 DA-C	56 DA-C								
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code										
1	NONTREATED									13.1	57.8	78	40	0	0	0	0	0	
2	ROUNDUP W-MAX	4.5	SL	0.375	LB AE/A	10.7	OZ/A	PRE	A	13.8	58.5	91	39	0	0	0	0	0	
3	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	OZ/A	PRE	A	13.5	58.0	97	43	0	0	0	0	0	
4	GRAMOXONE MAX	3	SL	0.312	LB A/A	13.3	OZ/A	PRE	A	13.6	58.7	92	39	0	0	0	0	0	
4	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	PRE	A										
5	GRAMOXONE MAX	3	SL	0.625	LB A/A	26.7	OZ/A	PRE	A	13.6	58.5	98	43	0	0	0	0	0	
5	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	PRE	A										
6	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	FALL	B	13.4	58.4	84	41	0	0	0	0	0	
6	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	FALL	B										
7	OLYMPUS	70	WG	0.04	LB A/A	0.91	OZ/A	FALL	B	13.8	58.5	94	41	0	0	0	0	0	
7	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	FALL	B										
8	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	FALL	B	13.6	58.2	100	37	0	0	0	0	0	
8	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	FALL	B										
9	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	FALL	B	13.4	58.0	72	40	0	0	0	0	0	
9	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	FALL	B										
9	28% UAN	100	LIQ	2.5	% V/V	2.5	% V/V	FALL	B										
10	OLYMPUS	70	WG	0.04	LB A/A	0.91	OZ/A	FALL	B	13.4	58.1	95	41	0	0	0	0	0	
10	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	FALL	B										
10	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	FALL	B										
11	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	FALL	B	13.5	58.5	101	35	0	0	0	0	0	
11	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	FALL	B										
11	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	FALL	B										
12	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	FALL	B	15.3	56.6	52	42	0	0	50	33	23	
12	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	FALL	B										
12	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	FALL	B										
12	28% UAN	100	LIQ	2.5	% V/V	2.5	% V/V	FALL	B										
13	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C	13.6	58.8	90	42				0	0	0
13	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C										
14	OLYMPUS	70	WG	0.04	LB A/A	0.91	OZ/A	SPRING	C	13.5	58.9	83	46				0	0	0
14	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C										

Weed Code
 Crop Code
 Rating Data Type
 Rating Unit
 Rating Date
 Trt-Eval Interval

TRZAW	TRZAW	TRZAW	GLXMA	TRZAW	TRZAW	TRZAW	TRZAW	TRZAW	TRZAW
Moisture	Test wt.	Yield	Yield	Injury	Injury	Injury	Injury	Injury	Injury
Percent	lb/bu	bu/A	bu/A	Percent	Percent	Percent	Percent	Percent	Percent
7-1-03	7-1-03	7-1-03	11-3-03			3-24-03	4-7-03	4-21-03	5-19-03
				14 DAT	28 DAT	0 DA-C	14 DA-C	28 DA-C	56 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code								
15	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	SPRING	C	14.2	58.4	86	39		0	0	0
15	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C								
16	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	SPRING	C	12.9	57.3	74	40		0	0	0
16	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C								
16	28% UAN	100	LIQ	2.5	% V/V	2.5	% V/V	SPRING	C								
17	OLYMPUS	70	WG	0.04	LB A/A	0.91	OZ/A	SPRING	C	13.4	59.2	88	37		0	0	0
17	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C								
17	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C								
18	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	SPRING	C	13.5	58.6	88	38		0	0	0
18	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C								
18	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C								
19	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	SPRING	C	12.9	57.5	74	42		12	20	15
19	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C								
19	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C								
19	28% UAN	100	LIQ	2.5	% V/V	2.5	% V/V	SPRING	C								
20	2,4-D LV4	3.8	EC	0.475	LB A/A	1	PT/A	SPRING	C	13.2	59.0	87	42		0	0	0
20	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C								
21	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C	13.2	58.5	85	43		0	0	0
21	2,4-D LV4	3.8	EC	0.475	LB A/A	1	PT/A	SPRING	C								
21	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C								
22	OLYMPUS	70	WG	0.04	LB A/A	0.91	OZ/A	SPRING	C	13.3	58.4	88	42		0	0	0
22	2,4-D LV4	3.8	EC	0.475	LB A/A	1	PT/A	SPRING	C								
22	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C								
23	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	SPRING	C	13.3	58.4	79	42		0	0	0
23	2,4-D LV4	3.8	EC	0.475	LB A/A	1	PT/A	SPRING	C								
23	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C								
24	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	SPRING	C	13.1	58.0	76	42		0	0	0
24	2,4-D LV4	3.8	EC	0.475	LB A/A	1	PT/A	SPRING	C								
24	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C								
24	28% UAN	100	LIQ	2.5	% V/V	2.5	% V/V	SPRING	C								
25	ROUNDUP W-MAX	4.5	SL	0.375	LB AE/A	10.7	OZ/A	PRE	A	13.3	58.1	98	43	0	0	0	0
25	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C								
25	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C								
26	GRAMOXONE MAX	3	SL	0.312	LB A/A	13.3	OZ/A	PRE	A	13.4	57.7	89	44	0	0	0	0
26	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	PRE	A								
26	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C								
26	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C								

Weed Code																			
Crop Code																			
Rating Data Type																			
Rating Unit																			
Rating Date																			
Trt-Eval Interval																			
		TRZAW	TRZAW	TRZAW	GLXMA	TRZAW	TRZAW	TRZAW	TRZAW	TRZAW	TRZAW								
		Moisture	Test wt.	Yield	Yield	Injury	Injury	Injury	Injury	Injury	Injury								
		Percent	lb/bu	bu/A	bu/A	Percent	Percent	Percent	Percent	Percent	Percent								
		7-1-03	7-1-03	7-1-03	11-3-03			3-24-03	4-7-03	4-21-03	5-19-03								
						14 DAT	28 DAT	0 DA-C	14 DA-C	28 DA-C	56 DA-C								
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code										
27	HARMONY GT	75	WG	0.0156	LB A/A	0.333	OZ/A	SPRING	C	13.6	58.4	72	41				0	0	0
27	EXPRESS	75	WG	0.00781	LB A/A	0.167	OZ/A	SPRING	C										
27	2,4-D LV4	3.8	EC	0.375	LB A/A	0.79	PT/A	SPRING	C										
27	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C										
28	HARMONY GT	75	WG	0.0125	LB A/A	0.267	OZ/A	SPRING	C	13.4	58.5	80	41				0	0	0
28	EXPRESS	75	WG	0.00625	LB A/A	0.133	OZ/A	SPRING	C										
28	2,4-D LV4	3.8	EC	0.375	LB A/A	0.79	PT/A	SPRING	C										
28	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C										
29	HARMONY GT	75	WG	0.0094	LB A/A	0.2	OZ/A	SPRING	C	13.6	61.7	85	44				0	0	0
29	EXPRESS	75	WG	0.0047	LB A/A	0.1	OZ/A	SPRING	C										
29	2,4-D LV4	3.8	EC	0.375	LB A/A	0.79	PT/A	SPRING	C										
29	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C										
30	HARMONY GT	75	WG	0.0094	LB A/A	0.2	OZ/A	FALL	B	13.3	58.6	86	42	0	0	0	0	0	0
30	EXPRESS	75	WG	0.0047	LB A/A	0.1	OZ/A	FALL	B										
30	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	FALL	B										
30	HARMONY GT	75	WG	0.0094	LB A/A	0.2	OZ/A	SPRING	C										
30	EXPRESS	75	WG	0.0047	LB A/A	0.1	OZ/A	SPRING	C										
30	2,4-D LV4	3.8	EC	0.375	LB A/A	0.79	PT/A	SPRING	C										
30	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C										
31	ROUNDUP W-MAX	4.5	SL	0.375	LB AE/A	10.7	OZ/A	PRE	A	13.2	58.6	100	41	0	0	0	0	0	0
31	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	SPRING	C										
31	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C										
32	GRAMOXONE MAX	3	SL	0.312	LB A/A	13.3	OZ/A	PRE	A	13.0	58.8	98	42	0	0	0	0	0	0
32	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	PRE	A										
32	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	SPRING	C										
32	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C										
33	NONTREATED									13.1	58.9	83	41	0	0	0	0	0	0
33	CLEARFIELD																		
LSD (P=.05)										1.14	2.19	16.1	6.1	0.0	0.0	0.0	1.0	4.8	6.9
Replicate F				5.454	0.694	3.903	1.577	0.000	0.000	0.000	1.000	1.461	1.692						
Replicate Prob(F)				0.0065	0.5036	0.0252	0.2146	1.0000	1.0000	1.0000	0.3769	0.2396	0.1922						
Treatment F				1.095	1.018	3.440	1.124	0.000	0.000	0.000	49.000	15.776	3.764						
Treatment Prob(F)				0.3715	0.4639	0.0001	0.3390	1.0000	1.0000	1.0000	0.0001	0.0001	0.0001						

Weed Code	ALLVI	ALLVI	ALLVI	ALLVI	ALLVI	ALLVI	POAAN	POAAN	POAAN	POAAN	POAAN	POAAN
Crop Code												
Rating Data Type	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date			3-24-03	4-7-03	4-21-03	5-19-03			3-24-03	4-7-03	4-21-03	5-19-03
Trt-Eval Interval	14 DAT	28 DAT	0 DA-C	14 DA-C	28 DA-C	56 DA-C	14 DAT	28 DAT	0 DA-C	14 DA-C	28 DA-C	56 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code										
1	NONTREATED									0	0	0		0	0	0	0	0	0
2	ROUNDUP W-MAX	4.5	SL	0.375	LB AE/A	10.7	OZ/A	PRE	A	25	67	25		75	75	93	93	50	50
3	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	OZ/A	PRE	A	25	83	75		95	95	93	100	50	50
4	GRAMOXONE MAX	3	SL	0.312	LB A/A	13.3	OZ/A	PRE	A	75	78	50		75	75	87	97	0	0
4	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	PRE	A										
5	GRAMOXONE MAX	3	SL	0.625	LB A/A	26.7	OZ/A	PRE	A	80	83	62		77	77	93	100	77	67
5	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	PRE	A										
6	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	FALL	B	0	0	95		97	97	0	0	0	0
6	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	FALL	B										
7	OLYMPUS	70	WG	0.04	LB A/A	0.91	OZ/A	FALL	B	0	0	60		0	0	0	0	17	0
7	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	FALL	B										
8	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	FALL	B	0	0	90		95	95	0	0	77	75
8	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	FALL	B										
9	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	FALL	B	0	0	0		0	0	0	0	0	0
9	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	FALL	B										
9	28% UAN	100	LIQ	2.5	% V/V	2.5	% V/V	FALL	B										
10	OLYMPUS	70	WG	0.04	LB A/A	0.91	OZ/A	FALL	B	0	0	90		95	95	0	0	62	82
10	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	FALL	B										
10	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	FALL	B										
11	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	FALL	B	0	0	90		98	98	0	0	28	28
11	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	FALL	B										
11	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	FALL	B										
12	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	FALL	B	0	0	90		95	95	0	0	28	25
12	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	FALL	B										
12	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	FALL	B										
12	28% UAN	100	LIQ	2.5	% V/V	2.5	% V/V	FALL	B										
13	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C				0	98	98			0	0
13	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C										
14	OLYMPUS	70	WG	0.04	LB A/A	0.91	OZ/A	SPRING	C				0	33	33			0	0
14	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C										
15	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	SPRING	C				0	95	95			0	0
15	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C										

Weed Code	ALLVI	ALLVI	ALLVI	ALLVI	ALLVI	ALLVI	POAAN	POAAN	POAAN	POAAN	POAAN	POAAN
Crop Code												
Rating Data Type	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date			3-24-03	4-7-03	4-21-03	5-19-03			3-24-03	4-7-03	4-21-03	5-19-03
Trt-Eval Interval	14 DAT	28 DAT	0 DA-C	14 DA-C	28 DA-C	56 DA-C	14 DAT	28 DAT	0 DA-C	14 DA-C	28 DA-C	56 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code												
16	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	SPRING	C												
16	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C												
16	28% UAN	100	LIQ	2.5	% V/V	2.5	% V/V	SPRING	C												
17	OLYMPUS	70	WG	0.04	LB A/A	0.91	OZ/A	SPRING	C												
17	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C												
17	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C												
18	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	SPRING	C												
18	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C												
18	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C												
19	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	SPRING	C												
19	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C												
19	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C												
19	28% UAN	100	LIQ	2.5	% V/V	2.5	% V/V	SPRING	C												
20	2,4-D LV4	3.8	EC	0.475	LB A/A	1	PT/A	SPRING	C												
20	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C												
21	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C												
21	2,4-D LV4	3.8	EC	0.475	LB A/A	1	PT/A	SPRING	C												
21	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C												
22	OLYMPUS	70	WG	0.04	LB A/A	0.91	OZ/A	SPRING	C												
22	2,4-D LV4	3.8	EC	0.475	LB A/A	1	PT/A	SPRING	C												
22	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C												
23	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	SPRING	C												
23	2,4-D LV4	3.8	EC	0.475	LB A/A	1	PT/A	SPRING	C												
23	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C												
24	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	SPRING	C												
24	2,4-D LV4	3.8	EC	0.475	LB A/A	1	PT/A	SPRING	C												
24	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C												
24	28% UAN	100	LIQ	2.5	% V/V	2.5	% V/V	SPRING	C												
25	ROUNDUP W-MAX	4.5	SL	0.375	LB AE/A	10.7	OZ/A	PRE	A	25	68	83	83	95	95	92	87	0	0	0	
25	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C												
25	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C												
26	GRAMOXONE MAX	3	SL	0.312	LB A/A	13.3	OZ/A	PRE	A	75	80	75	75	98	98	87	93	30	30	0	0
26	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	PRE	A												
26	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C												
26	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C												

Weed Code	ALLVI	ALLVI	ALLVI	ALLVI	ALLVI	ALLVI	POAAN	POAAN	POAAN	POAAN	POAAN	POAAN
Crop Code												
Rating Data Type	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date			3-24-03	4-7-03	4-21-03	5-19-03			3-24-03	4-7-03	4-21-03	5-19-03
Trt-Eval Interval	14 DAT	28 DAT	0 DA-C	14 DA-C	28 DA-C	56 DA-C	14 DAT	28 DAT	0 DA-C	14 DA-C	28 DA-C	56 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code													
27	HARMONY GT	75	WG	0.0156	LB A/A	0.333	OZ/A	SPRING	C													
27	EXPRESS	75	WG	0.00781	LB A/A	0.167	OZ/A	SPRING	C													
27	2,4-D LV4	3.8	EC	0.375	LB A/A	0.79	PT/A	SPRING	C													
27	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C													
28	HARMONY GT	75	WG	0.0125	LB A/A	0.267	OZ/A	SPRING	C													
28	EXPRESS	75	WG	0.00625	LB A/A	0.133	OZ/A	SPRING	C													
28	2,4-D LV4	3.8	EC	0.375	LB A/A	0.79	PT/A	SPRING	C													
28	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C													
29	HARMONY GT	75	WG	0.0094	LB A/A	0.2	OZ/A	SPRING	C													
29	EXPRESS	75	WG	0.0047	LB A/A	0.1	OZ/A	SPRING	C													
29	2,4-D LV4	3.8	EC	0.375	LB A/A	0.79	PT/A	SPRING	C													
29	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C													
30	HARMONY GT	75	WG	0.0094	LB A/A	0.2	OZ/A	FALL	B	0	0	90	90	98	98	0	0	0	0	0		
30	EXPRESS	75	WG	0.0047	LB A/A	0.1	OZ/A	FALL	B													
30	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	FALL	B													
30	HARMONY GT	75	WG	0.0094	LB A/A	0.2	OZ/A	SPRING	C													
30	EXPRESS	75	WG	0.0047	LB A/A	0.1	OZ/A	SPRING	C													
30	2,4-D LV4	3.8	EC	0.375	LB A/A	0.79	PT/A	SPRING	C													
30	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C													
31	ROUNDUP W-MAX	4.5	SL	0.375	LB AE/A	10.7	OZ/A	PRE	A	25	65	75	75	98	98	87	93	17	17	75	75	
31	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	SPRING	C													
31	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C													
32	GRAMOXONE MAX	3	SL	0.312	LB A/A	13.3	OZ/A	PRE	A	75	82	75	75	98	98	90	97	77	77	75	75	
32	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	PRE	A													
32	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	SPRING	C													
32	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C													
33	NONTREATED									0	0	0	0	0	0	0	0	0	0	0	0	0
33	CLEARFIELD																					
LSD (P=.05)										0.0	22.6	22.0	2.1	12.9	12.9	6.8	6.0	40.8	23.2	19.0	19.0	
Replicate F										0.000	0.655	1.113	1.000	5.168	5.168	1.350	4.972	0.813	0.587	1.470	1.470	
Replicate Prob(F)										1.0000	0.5264	0.3402	0.3769	0.0083	0.0083	0.2728	0.0132	0.4522	0.5609	0.2376	0.2376	
Treatment F										0.000	25.041	19.519	2302.375	78.661	78.661	380.566	544.588	4.406	4.808	18.037	18.037	
Treatment Prob(F)										1.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	

Weed Code	LAMAM	LAMAM	LAMAM	LAMAM	LAMAM	LAMAM
Crop Code						
Rating Data Type	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date			3-24-03	4-7-03	4-21-03	5-19-03
Trt-Eval Interval	14 DAT	28 DAT	0 DA-C	14 DA-C	28 DA-C	56 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code						
1	NONTREATED									0	0	0		0	0
2	ROUNDUP W-MAX	4.5	SL	0.375	LB AE/A	10.7	OZ/A	PRE	A	83	33	33		98	98
3	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	OZ/A	PRE	A	90	93	66		98	98
4	GRAMOXONE MAX	3	SL	0.312	LB A/A	13.3	OZ/A	PRE	A	25	0	0		0	0
4	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	PRE	A						
5	GRAMOXONE MAX	3	SL	0.625	LB A/A	26.7	OZ/A	PRE	A	80	33	25		25	25
5	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	PRE	A						
6	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	FALL	B	0	0	98		98	98
6	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	FALL	B						
7	OLYMPUS	70	WG	0.04	LB A/A	0.91	OZ/A	FALL	B	0	0	17		17	17
7	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	FALL	B						
8	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	FALL	B	0	0	70		17	17
8	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	FALL	B						
9	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	FALL	B	0	0	43		0	0
9	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	FALL	B						
9	28% UAN	100	LIQ	2.5	% V/V	2.5	% V/V	FALL	B						
10	OLYMPUS	70	WG	0.04	LB A/A	0.91	OZ/A	FALL	B	0	0	98		98	98
10	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	FALL	B						
10	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	FALL	B						
11	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	FALL	B	0	0	98		98	98
11	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	FALL	B						
11	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	FALL	B						
12	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	FALL	B	0	0	98		98	98
12	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	FALL	B						
12	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	FALL	B						
12	28% UAN	100	LIQ	2.5	% V/V	2.5	% V/V	FALL	B						
13	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C				0	98	98
13	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C						
14	OLYMPUS	70	WG	0.04	LB A/A	0.91	OZ/A	SPRING	C				0	0	0
14	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C						
15	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	SPRING	C				0	0	0
15	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C						

Weed Code	LAMAM	LAMAM	LAMAM	LAMAM	LAMAM	LAMAM
Crop Code						
Rating Data Type	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date			3-24-03	4-7-03	4-21-03	5-19-03
Trt-Eval Interval	14 DAT	28 DAT	0 DA-C	14 DA-C	28 DA-C	56 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code						
16	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	SPRING	C			0	0	0	
16	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C						
16	28% UAN	100	LIQ	2.5	% V/V	2.5	% V/V	SPRING	C						
17	OLYMPUS	70	WG	0.04	LB A/A	0.91	OZ/A	SPRING	C			0	98	98	
17	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C						
17	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C						
18	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	SPRING	C			0	98	98	
18	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C						
18	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C						
19	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	SPRING	C			0	98	98	
19	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C						
19	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C						
19	28% UAN	100	LIQ	2.5	% V/V	2.5	% V/V	SPRING	C						
20	2,4-D LV4	3.8	EC	0.475	LB A/A	1	PT/A	SPRING	C			0	0	0	
20	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C						
21	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C			0	98	98	
21	2,4-D LV4	3.8	EC	0.475	LB A/A	1	PT/A	SPRING	C						
21	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C						
22	OLYMPUS	70	WG	0.04	LB A/A	0.91	OZ/A	SPRING	C			0	0	0	
22	2,4-D LV4	3.8	EC	0.475	LB A/A	1	PT/A	SPRING	C						
22	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C						
23	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	SPRING	C			0	0	0	
23	2,4-D LV4	3.8	EC	0.475	LB A/A	1	PT/A	SPRING	C						
23	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C						
24	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	SPRING	C			0	0	0	
24	2,4-D LV4	3.8	EC	0.475	LB A/A	1	PT/A	SPRING	C						
24	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C						
24	28% UAN	100	LIQ	2.5	% V/V	2.5	% V/V	SPRING	C						
25	ROUNDUP W-MAX	4.5	SL	0.375	LB AE/A	10.7	OZ/A	PRE	A	88	58	0	0	98	98
25	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C						
25	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C						
26	GRAMOXONE MAX	3	SL	0.312	LB A/A	13.3	OZ/A	PRE	A	25	0	0	0	98	98
26	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	PRE	A						
26	HARMONY EXTRA	75	WG	0.0235	LB A/A	0.5	OZ/A	SPRING	C						
26	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C						

Weed Code	LAMAM	LAMAM	LAMAM	LAMAM	LAMAM	LAMAM
Crop Code						
Rating Data Type	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date			3-24-03	4-7-03	4-21-03	5-19-03
Trt-Eval Interval	14 DAT	28 DAT	0 DA-C	14 DA-C	28 DA-C	56 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code						
27	HARMONY GT	75	WG	0.0156	LB A/A	0.333	OZ/A	SPRING	C			0	98	98	
27	EXPRESS	75	WG	0.00781	LB A/A	0.167	OZ/A	SPRING	C						
27	2,4-D LV4	3.8	EC	0.375	LB A/A	0.79	PT/A	SPRING	C						
27	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C						
28	HARMONY GT	75	WG	0.0125	LB A/A	0.267	OZ/A	SPRING	C			0	98	98	
28	EXPRESS	75	WG	0.00625	LB A/A	0.133	OZ/A	SPRING	C						
28	2,4-D LV4	3.8	EC	0.375	LB A/A	0.79	PT/A	SPRING	C						
28	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C						
29	HARMONY GT	75	WG	0.0094	LB A/A	0.2	OZ/A	SPRING	C			0	98	98	
29	EXPRESS	75	WG	0.0047	LB A/A	0.1	OZ/A	SPRING	C						
29	2,4-D LV4	3.8	EC	0.375	LB A/A	0.79	PT/A	SPRING	C						
29	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C						
30	HARMONY GT	75	WG	0.0094	LB A/A	0.2	OZ/A	FALL	B	0	0	98	98	98	98
30	EXPRESS	75	WG	0.0047	LB A/A	0.1	OZ/A	FALL	B						
30	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	FALL	B						
30	HARMONY GT	75	WG	0.0094	LB A/A	0.2	OZ/A	SPRING	C						
30	EXPRESS	75	WG	0.0047	LB A/A	0.1	OZ/A	SPRING	C						
30	2,4-D LV4	3.8	EC	0.375	LB A/A	0.79	PT/A	SPRING	C						
30	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	SPRING	C						
31	ROUNDUP W-MAX	4.5	SL	0.375	LB AE/A	10.7	OZ/A	PRE	A	82	68	0	0	0	0
31	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	SPRING	C						
31	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C						
32	GRAMOXONE MAX	3	SL	0.312	LB A/A	13.3	OZ/A	PRE	A	25	0	0	0	0	0
32	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	PRE	A						
32	MAVERICK	75	WG	0.03125	LB A/A	0.67	OZ/A	SPRING	C						
32	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	% V/V	SPRING	C						
33	NONTREATED									0	0	0	0	0	0
33	CLEARFIELD														
LSD (P=.05)										4.3	33.1	36.2	0.0	16.4	16.4
Replicate F										1.967	1.920	1.242	0.000	3.063	3.063
Replicate Prob(F)										0.1555	0.1631	0.3017	1.0000	0.0537	0.0537
Treatment F										642.517	6.425	11.364	0.000	69.004	69.004
Treatment Prob(F)										0.0001	0.0001	0.0001	1.0000	0.0001	0.0001

Control of Wild Garlic and other Weeds in No-Till Wheat.

Project Code: 03-1-W130 Location: Belleville Research Center

Trial Comments

1. Protocol: SIU; DuPont; BASF; Monsanto; Bayer.
2. Ratings: CI 7 and 14 DA POST treatments (28 DA if needed); WC 14 and 28 DAT; rate all plots 28 and 56 DA SPRING application.
3. FALL application is after 2L wheat; SPRING application is after new spring growth occurs.
4. Retain wheat grain samples from each plot for garlic analysis.
5. DAT = days after treatment. DA-C = days after SPRING application. 0 DA-C = prior to SPRING application.
14 days after PRE and FALL applications was on 11-1-02 and 12-4-02, respectively.
28 days after PRE and FALL applications was on 11-15-02 and 12-18-02, respectively.
6. At 7 days after FALL application, no crop injury was observed. At 7 days after SPRING application, no crop injury was observed.
7. On 11-15-02 at 28 days after PRE, a second flush of LAMAM and POAAN emerged after 11-1-02 rating.
8. Grain samples for garlic analysis were not collected.