

Evaluation of Expert in Roundup Ready Corn.

Project Code: 03-6C-M60

Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
 Trial Status: Final Updated: 10-31-03

Objective:

Evaluate the performance of Expert in no-till burndown applications and as an early postemergence application in Roundup Ready corn.

Weed Code	Common Name	Scientific Name
1. CAPBP	shepherdspurse	Capsella bursa-pastoris (L.) Medicus
2. LAMPU	deadnettle, purple	Lamium purpureum L.
3. STEME	chickweed, common	Stellaria media (L.) Vill.
4. AMBTR	ragweed, giant	Ambrosia trifida L.
5. CHEAL	lambquarters, common	Chenopodium album L.
6. XANST	cocklebur, common	Xanthium strumarium L.
7. SETFA	foxtail, giant	Setaria faberi Herrm.

Crop 1:	ZEAMX corn, field	Variety:	DKC 60-17 RR
Planting Method:	Seeded	Planting Date:	5-16-03
Rate:	28000 S/A	Depth:	1.5 IN
Row Spacing:	30 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	24 FT	Reps:	3
Tillage Type:	No-Till	Study Design:	Randomized complete block		
Previous Crop, Year:	ZEAMX, 2002				

Field Prep./Maintenance: N 150 LB/A, P205 50 LB/A, K20 150 LB/A

Soil Name:	Stoy	% OM:	1.6	pH:	6.6	CEC:	8
Texture:	Silt loam	Fert. Level:	P1: 91 LB/A, K: 296 LB/A				

APPLICATION DESCRIPTION

	A	B
Application Date:	5-2-03	6-4-03
Time of Day:	9:00	11:00
Application Method:	Spray	Spray
Application Timing:	7EPP	1-3"W
Applic. Placement:	BROFOL	BROFOL
Air Temp., Unit:	62 F	68 F
% Relative Humidity:	88	48
Wind Velocity, Unit:	3 MPH	7 MPH
Soil Moisture:	ABONOR	ABONOR

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	ZEAMX NA	ZEAMX V3
Height, Unit:	NA NA	4-6 IN

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code:	CAPBP	
Stage(leaves):	10+	
Height(inches):	8-18	
Density:	Medium	
Weed 2 Code:	LAMPU	
Stage(leaves):	10+	
Height(inches):	4-6	
Density:	Medium	
Weed 3 Code:	STEME	
Stage(leaves):	10+	
Height(inches):	4-6	
Density:	High	

Weed 4 Code: AMBTR
 Stage(leaves): 5-6
 Height(inches): 1-2
 Density: Medium

Weed 5 Code: CHEAL
 Stage(leaves): 5-10
 Height(inches): 1-3
 Density: Medium

Weed 6 Code:	XANST	XANST
Stage(leaves):	1-2	2-5
Height(inches):	1-2	1-3
Density:	Low	High

Weed 7 Code:	SETFA	SETFA
Stage(leaves):	2-4	5-6
Height(inches):	1-2	1-3
Density:	Low	Low

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Operating Pressure:	40 PSI	40 PSI
Nozzle Type:	Flat fan	Flat fan
Nozzle Size:	8003	8002
Boom Length, Unit:	7.5 FT	7.5 FT
Spray Volume, Unit:	20 GPA	20 GPA

NOTES:

Harvested Oct-27-03, (2) 30 inch rows by 21 ft.

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Weed Code									CAPBP	CAPBP	LAMPU	LAMPU	STEME	STEME	AMBTR	AMBTR	AMBTR	AMBTR	AMBTR		
Crop Code									ZEAMX												
Rating Data Type									Yield	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control		
Rating Unit									bu/A	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent		
Rating Date									10-27-03	5-16-03	5-30-03	5-16-03	5-30-03	5-16-03	5-30-03	5-16-03	5-30-03	6-18-03	7-2-03	7-30-03	
Trt-Eval Interval									14 DA-A	28 DA-A	14 DA-A	28 DA-A	14 DA-A	28 DA-A	14 DA-A	28 DA-A	14 DA-B	28 DA-B	56 DA-B		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code												
1	NONTREATED									13	0	0	0	0	0	0	0	0	0		
2	EXPERT	4.88	SC	3.65	LB A/A	3	QT/A	7EPP	A	67	100	100	100	100	100	100	100	91	45		
2	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	7EPP	A												
3	EXPERT	4.88	SC	4.55	LB A/A	3.75	QT/A	7EPP	A	82	100	100	100	100	100	100	100	93	75		
3	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	7EPP	A												
4	FIELDMASTER	4.25	L	4.24	LB A/A	4	QT/A	7EPP	A	48	100	100	100	100	100	100	100	96	70		
4	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	7EPP	A												
5	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	FL OZ/A	7EPP	A	30	100	100	100	100	100	100	97	77	0		
5	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	7EPP	A												
6	EXPERT	4.88	SC	3.04	LB A/A	2.5	QT/A	1-3"W	B	105								99	99		
7	EXPERT	4.88	SC	3.65	LB A/A	3	QT/A	1-3"W	B	95								99	98		
8	FIELDMASTER	4.25	L	4.24	LB A/A	4	QT/A	1-3"W	B	112								99	98		
9	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	FL OZ/A	1-3"W	B	93								96	82		
9	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	1-3"W	B										30		
10	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	FL OZ/A	7EPP	A	91	100	100	100	100	100	100	100	95	93		
10	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	7EPP	A										63		
10	ROUNDUP W-MAX	4.5	SL	0.56	LB AE/A	16	FL OZ/A	1-3"W	B												
10	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	1-3"W	B												
LSD (P=.05)										31.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.2	9.9	29.7
Replicate F										6.472	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.066	3.312	2.011
Replicate Prob(F)										0.0076	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.4019	0.3887	0.0596	0.1707
Treatment F										10.099	0.000	0.000	0.000	0.000	0.000	0.000	0.000	889.000	2.382	80.318	13.746
Treatment Prob(F)										0.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0001	0.1378	0.0001	0.0001

Weed Code									CHEAL	CHEAL	CHEAL	CHEAL	CHEAL	XANST	XANST	XANST	XANST	XANST	SETFA	SETFA	SETFA	SETFA	SETFA		
Crop Code																									
Rating Data Type									Control	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	Percent				
Rating Date									5-16-03	5-30-03	6-18-03	7-2-03	7-30-03	5-16-03	5-30-03	6-18-03	7-2-03	7-30-03	5-16-03	5-30-03	6-18-03	7-2-03	7-30-03		
Trt-Eval Interval									14 DA-A	28 DA-A	14 DA-B	28 DA-B	56 DA-B	14 DA-A	28 DA-A	14 DA-B	28 DA-B	56 DA-B	14 DA-A	28 DA-A	14 DA-B	28 DA-B	56 DA-B		
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	EXPERT	4.88	SC	3.65	LB A/A	3	QT/A	7EPP	A		100	100		99	99	93	90		40	33	97	92		13	7
2	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	7EPP	A																
3	EXPERT	4.88	SC	4.55	LB A/A	3.75	QT/A	7EPP	A		100	100		99	99	97	87		37	27	100	95		35	20
3	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	7EPP	A																
4	FIELDMASTER	4.25	L	4.24	LB A/A	4	QT/A	7EPP	A		100	100		99	96	93	87		50	38	97	85		7	0
4	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	7EPP	A																
5	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	FL OZ/A	7EPP	A		100	100		96	80	78	28		23	0	87	0		0	0
5	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	7EPP	A																
6	EXPERT	4.88	SC	3.04	LB A/A	2.5	QT/A	1-3"W	B					99	99	99		93	84	79			99	95	95
7	EXPERT	4.88	SC	3.65	LB A/A	3	QT/A	1-3"W	B					99	99	99		92	78	67			99	95	93
8	FIELDMASTER	4.25	L	4.24	LB A/A	4	QT/A	1-3"W	B					99	99	99		95	88	77			99	95	92
9	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	FL OZ/A	1-3"W	B					99	99	99		82	55	10			98	85	75
9	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	1-3"W	B																
10	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	FL OZ/A	7EPP	A		100	100	99	99	99	90	60	87	60	43	87	0	99	82	78
10	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	7EPP	A																
10	ROUNDUP W-MAX	4.5	SL	0.56	LB AE/A	16	FL OZ/A	1-3"W	B																
10	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	1-3"W	B																
LSD (P=.05)											0.0	0.0	0.0	2.8	9.8	6.6	52.5	4.6	18.5	14.2	9.2	6.4	1.9	7.4	9.0
Replicate F											0.000	0.000	0.000	1.000	0.408	3.298	1.212	4.033	0.194	2.329	0.217	1.818	1.000	0.310	0.280
Replicate Prob(F)											1.0000	1.0000	1.0000	0.3874	0.6709	0.0794	0.3378	0.0615	0.8252	0.1260	0.8083	0.2121	0.4096	0.7370	0.7590
Treatment F											0.000	0.000	0.000	1082.667	88.894	321.809	4.979	14.089	20.075	38.052	174.087	606.386	1.000	296.966	210.481
Treatment Prob(F)											1.0000	1.0000	1.0000	0.0001	0.0001	0.0001	0.0151	0.0011	0.0001	0.0001	0.0001	0.0001	0.4609	0.0001	0.0001

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

	ZEAMX	ZEAMX	ZEAMX	ZEAMX
	Injury	Injury	Injury	Injury
	Percent	Percent	Percent	Percent
	6-11-03	6-18-03	7-2-03	7-30-03
	7 DA-B	14 DA-B	28 DA-B	56 DA-B

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Unit Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code				
1	NONTREATED										0	0	
2	EXPERT	4.88	SC	3.65	LB A/A	3	QT/A	7EPP	A		0	0	
2	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	7EPP	A				
3	EXPERT	4.88	SC	4.55	LB A/A	3.75	QT/A	7EPP	A		0	0	
3	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	7EPP	A				
4	FIELDMASTER	4.25	L	4.24	LB A/A	4	QT/A	7EPP	A		0	0	
4	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	7EPP	A				
5	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	FL OZ/A	7EPP	A		0	0	
5	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	7EPP	A				
6	EXPERT	4.88	SC	3.04	LB A/A	2.5	QT/A	1-3"W	B	0	0	0	0
7	EXPERT	4.88	SC	3.65	LB A/A	3	QT/A	1-3"W	B	0	0	0	0
8	FIELDMASTER	4.25	L	4.24	LB A/A	4	QT/A	1-3"W	B	0	0	0	0
9	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	FL OZ/A	1-3"W	B	0	0	0	0
9	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	1-3"W	B				
10	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	FL OZ/A	7EPP	A	0	0	0	0
10	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	7EPP	A				
10	ROUNDUP W-MAX	4.5	SL	0.56	LB AE/A	16	FL OZ/A	1-3"W	B				
10	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	1-3"W	B				
LSD (P=.05)										0.0	0.0	0.0	0.0
Replicate F										0.000	0.000	0.000	0.000
Replicate Prob(F)										1.0000	1.0000	1.0000	1.0000
Treatment F										0.000	0.000	0.000	0.000
Treatment Prob(F)										1.0000	1.0000	1.0000	1.0000

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Trial Comments

- 1. Protocol: Syngenta.
- 2. Ratings CI 7 DAT; CI and WC 14, 28 and 56 DAT.
- 3. Yield.
- 4. DA-A = days after 7EPP application. DA-B = days after 1-3"W application.
- 5. Ratings for treatments 1 to 5 on 7-2-03 were rated on 6-27-03 at 56 days after 7EPP application.
- 6. Ratings for treatments 1 to 5 on 7-30-03 were 89 days after 7EPP application.