

AE 172747 Tank-mix Study.

Project Code: 06-2C-MW90      Location: Belleville Research Center  
 Investigator: Bryan Young

**Investigator:** Bryan Young, Associate Professor, Southern Illinois University

**City State Zip Country:**      Belleville      IL 62221 USA  
**Trial Status:** Final      **Updated:**      10-11-06

**Objective:**

Evaluate the necessary rate of AE 0172747 and tank-mix partners for control of existing weeds and residual activity.

Weed Code	Common Name	Scientific Name
1.	PANDI panicum, fall	Panicum dichotomiflorum Michx.
2.	ABUTH velvetleaf	Abutilon theophrasti Medicus
3.	AMATA waterhemp, common	Amaranthus rudis Sauer

**Crop 1:**              ZEAMX corn, field      **Variety:**      33K44  
**Planting Method:** Seeded      **Planting Date:** 5-23-06  
**Rate:**              28000 S/A      **Depth:**      1.5 IN  
**Row Spacing:**      30 IN

**Plot Width, Unit:** 10 FT      **Plot Length, Unit:** 28 FT      **Reps:** 3  
**Tillage Type:** Reduced-Till      **Study Design:** Randomized complete block  
**Previous Crop, Year:** GLXMA, 2005  
**Field Prep./Maintenance:** N 150 LB/A, P205 0 LB/A, K20 100 LB/A

**Soil Name:** Weir      **% OM:** 1.6      **pH:** 6.4      **CEC:** 8  
**Texture:** Silt loam      **Fert. Level:** P1: 92 LB/A, K: 365 LB/A

**APPLICATION DESCRIPTION**

**A**  
**Application Date:** 6-16-06  
**Time of Day:** 8:00  
**Application Method:** Spray  
**Application Timing:** 6-8"W  
**Applic. Placement:** BROFOL  
**Air Temp., Unit:** 78 F  
**% Relative Humidity:** 94  
**Wind Velocity, Unit:** 0 MPH  
**Soil Moisture:** NORMAL

**CROP STAGE AT EACH APPLICATION**

**A**  
**Crop 1 Code, Stage:** ZEAMX V5-V6  
**Height, Unit:** 16-18 IN

**WEED STAGE AT EACH APPLICATION**

**A**

<b>Weed 1 Code:</b>	PANDI
<b>Stage (leaves):</b>	6-12
<b>Height (inches):</b>	6-8
<b>Density:</b>	Low
<b>Weed 2 Code:</b>	ABUTH
<b>Stage (leaves):</b>	5-6
<b>Height (inches):</b>	6-9
<b>Density:</b>	Medium
<b>Weed 3 Code:</b>	AMATA
<b>Stage (leaves):</b>	10+
<b>Height (inches):</b>	4-9
<b>Density:</b>	High

**APPLICATION EQUIPMENT**

**A**  
**Appl. Equipment:** CO2 sprayer  
**Operating Pressure:** 40 PSI  
**Nozzle Type:** Flat fan  
**Nozzle Size:** 8002  
**Boom Length, Unit:** 7.5 FT  
**Spray Volume, Unit:** 15 GPA

**NOTES:**

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Weed Code		Crop Code		Rating Data Type		Rating Unit		Rating Date		Trt-Eval Interval		ZEAMX	ZEAMX	ZEAMX	PANDI	PANDI	ABUTH	ABUTH	AMATA	AMATA	
												Injury	Injury	Injury	Control	Control	Control	Control	Control	Control	
												6-23-06	6-30-06	7-21-06	6-30-06	7-21-06	6-30-06	7-21-06	6-30-06	7-21-06	
												7 DA-A	14 DA-A	35 DA-A	14 DA-A	35 DA-A	14 DA-A	35 DA-A	14 DA-A	35 DA-A	
Trt	Treatment	Form	Form	Rate	Rate	Prod	Prod	Grow	Appl												
No.	Name	Conc	Type	Unit	Unit	Rate	Unit	Stg	Code												
1	NONTREATED									0	0	0	0	0	0	0	0	0	0	0	
2	LIBERTY	1.67	EC	0.417	lb ai/a	32	fl oz/a	6-8"	W A	0	0	0	92	86	99	99	96	93			
2	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	6-8"	W A												
3	LIBERTY	1.67	EC	0.417	lb ai/a	32	fl oz/a	6-8"	W A	0	0	0	92	88	99	99	99	99			
3	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	6-8"	W A												
3	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	6-8"	W A												
4	LIBERTY	1.67	EC	0.417	lb ai/a	32	fl oz/a	6-8"	W A	0	0	0	93	88	99	99	99	99			
4	AE 0172747	5.25	SC	0.041	lb ai/a	1	fl oz/a	6-8"	W A												
4	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	6-8"	W A												
5	LIBERTY	1.67	EC	0.417	lb ai/a	32	fl oz/a	6-8"	W A	0	0	0	93	87	99	99	98	99			
5	AE 0172747	5.25	SC	0.0615	lb ai/a	1.5	fl oz/a	6-8"	W A												
5	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	6-8"	W A												
6	LIBERTY	1.67	EC	0.417	lb ai/a	32	fl oz/a	6-8"	W A	0	0	0	98	87	99	99	99	99			
6	AE 0172747	5.25	SC	0.082	lb ai/a	2.0	fl oz/a	6-8"	W A												
6	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	6-8"	W A												
7	LIBERTY	1.67	EC	0.417	lb ai/a	32	fl oz/a	6-8"	W A	0	0	0	97	91	99	99	99	99			
7	IMPACT	2.8	SC	0.00547	lb ai/a	0.25	fl oz/a	6-8"	W A												
7	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	6-8"	W A												
8	LIBERTY	1.67	EC	0.417	lb ai/a	32	fl oz/a	6-8"	W A	0	0	0	92	86	99	99	99	99			
8	CALLISTO	4	SC	0.0312	lb ai/a	1	fl oz/a	6-8"	W A												
8	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	6-8"	W A												
9	LIBERTY	1.67	EC	0.417	lb ai/a	32	fl oz/a	6-8"	W A	0	0	0	95	89	99	99	99	99			
9	AE 0172747	5.25	SC	0.041	lb ai/a	1	fl oz/a	6-8"	W A												
9	AATREX	90	WG	0.5	lb ai/a	0.556	lb/a	6-8"	W A												
9	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	6-8"	W A												
10	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	6-8"	W A	0	0	0	94	98	99	99	99	99			
10	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	6-8"	W A												
11	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	6-8"	W A	0	0	0	98	96	98	98	98	98			
11	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	6-8"	W A												
11	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	6-8"	W A												
12	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	6-8"	W A	0	0	0	99	97	99	99	99	99			
12	AE 0172747	5.25	SC	0.041	lb ai/a	1	fl oz/a	6-8"	W A												
12	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	6-8"	W A												
13	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	6-8"	W A	0	0	0	99	97	99	99	99	99			
13	AE 0172747	5.25	SC	0.0615	lb ai/a	1.5	fl oz/a	6-8"	W A												
13	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	6-8"	W A												
14	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	6-8"	W A	0	0	0	98	98	99	99	99	99			
14	AE 0172747	5.25	SC	0.082	lb ai/a	2.0	fl oz/a	6-8"	W A												
14	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	6-8"	W A												
15	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	6-8"	W A	0	0	0	99	99	99	99	99	99			
15	IMPACT	2.8	SC	0.00547	lb ai/a	0.25	fl oz/a	6-8"	W A												
15	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	6-8"	W A												
16	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	6-8"	W A	0	0	0	98	97	99	99	98	99			
16	CALLISTO	4	SC	0.0312	lb ai/a	1	fl oz/a	6-8"	W A												
16	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	6-8"	W A												
17	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	6-8"	W A	0	0	0	99	99	99	99	99	99			
17	AE 0172747	5.25	SC	0.041	lb ai/a	1	fl oz/a	6-8"	W A												
17	AATREX	90	WG	0.5	lb ai/a	0.556	lb/a	6-8"	W A												
17	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	6-8"	W A												
LSD (P=.05)											0.0	0.0	0.0	4.5	3.3	0.5	0.9	2.4	4.4		
Replicate F											0.000	0.000	0.000	4.606	4.898	1.000	1.000	1.288	1.000		
Replicate Prob(F)											1.0000	1.0000	1.0000	0.0175	0.0139	0.3791	0.3791	0.2897	0.3791		
Treatment F											0.000	0.000	0.000	224.438	395.370	22034.690	5504.782	849.118	243.392		
Treatment Prob(F)											1.0000	1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001		

Trial Comments

1. Protocol: Bayer (JNE).
2. Ratings: CI 7 DAT; CI/WC 14 + 35 DAT.
3. Crop destruct.
4. DA-A = Days after 6-8"W application.