

Callisto Versus Impact - Sequential Programs.

Project Code: 06-51E-M100 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: 11-27-06**Objective:**

Determine any differences in the efficacy of Callisto versus Impact for postemergence applications in corn.

Weed Code	Common Name	Scientific Name
1. AMBTR	ragweed, giant	Ambrosia trifida L.
2. ABUTH	velvetleaf	Abutilon theophrasti Medicus
3. AMATA	waterhemp, common	Amaranthus rudis Sauer
4. CYPES	nutsedge, yellow	Cyperus esculentus L.
5. SETFA	foxtail, giant	Setaria faberi Herrm.
6. PANDI	panicum, fall	Panicum dichotomiflorum Michx.
7. IPOHE	morningglory, ivyleaf	Ipomoea hederacea (L.) Jacq.

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:	27 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:	2.2	pH:	6.7	CEC:	11
Texture:	Silt loam	Fert. Level:	P1: 90 LB/A, K: 409 LB/A				

APPLICATION DESCRIPTION

	A	B	C	D
Application Date:	5-24-06	6-9-06	6-13-06	6-16-06
Time of Day:	11:00	7:30	11:00	7:30
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	PRE	2-3"W	2-4"W	6-8"W
Applic. Placement:	BROSOI	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	80 F	78 F	76 F	78 F
% Relative Humidity:	80	90	54	94
Wind Velocity, Unit:	7 MPH	2-4 MPH	5-6 MPH	0 MPH
Soil Moisture:	NORMAL	NORMAL	NORMAL	NORMAL
% Cloud Cover:	20	10	10	

CROP STAGE AT EACH APPLICATION

	A	B	C	D
Crop 1 Code, Stage:	ZEAMX NA	ZEAMX V4	ZEAMX V5	ZEAMX V5-V6
Height, Unit:	NA NA	9-11 IN	10-12 IN	16-18 IN

WEED STAGE AT EACH APPLICATION

	A	B	C	D
Weed 1 Code:	AMBTR	AMBTR	AMBTR	AMBTR
Stage (leaves):	2-6	2-8	2-8	8-10
Height (inches):	0-5	2-6	2-6	6-10
Density:	Medium	High	High	High
Weed 2 Code:	ABUTH	ABUTH	ABUTH	ABUTH
Stage (leaves):	2-4	2-6	2-6	5-6
Height (inches):	0-3	0-4	0-4	6-8
Density:	Medium	High	High	Medium
Weed 3 Code:	AMATA	AMATA	AMATA	AMATA
Stage (leaves):	2-4	2-8	2-8	10+
Height (inches):	0-2	2-6	2-6	6-8
Density:	Low	Low	Low	Medium
Weed 4 Code:	CYPES	CYPES	CYPES	CYPES
Stage (leaves):	2-6	3-8	3-8	5-6
Height (inches):	1-3	2-6	2-6	6-8
Density:	Medium	Low	Low	Low
Weed 5 Code:	SETFA	SETFA	SETFA	SETFA
Stage (leaves):	2-4	3-5	3-5	5-6
Height (inches):	0-3	3-4	3-4	5-6
Density:	Low	Low	Low	Low
Weed 6 Code:	PANDI	PANDI	PANDI	PANDI
Stage (leaves):	2-4	3-5	3-5	5-6
Height (inches):	0-3	3-4	3-4	4-6
Density:	Low	Low	Low	Low
Weed 7 Code:	IPOHE	IPOHE	IPOHE	IPOHE
Stage (leaves):	2-5	2-4	2-4	10+
Height (inches):	0-3	0-3	0-3	4-6
Density:	Low	Low	Low	Low

APPLICATION EQUIPMENT

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

NOTES:

Callisto Versus Impact - Sequential Programs.

Project Code: 06-51E-M100 Location: Belleville Research Center
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Weed Code		Crop Code		Rating Data Type		Rating Unit		Rating Date		Trt-Eval Interval		ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
												Moisture	Yield	Injury	Injury	Injury	Injury
												Percent	bu/A	Percent	Percent	Percent	Percent
												10-12-06	10-12-06	7 DAPO	14 DAPO	28 DAPO	56 DAPO
Trt	Treatment	Form	Form	Rate	Rate	Prod	Prod	Grow	Appl								
No.	Name	Conc	Type	Unit	Unit	Rate	Unit	Stg	Code								
1	NONTREATED									15.8	48	0	0	0	0	0	0
2	LEXAR	3.7	L	1.39	lb ai/a	1.5	qt/a	PRE	A	16.0	174	0	0	0	0	0	0
2	LEXAR	3.7	L	1.39	lb ai/a	1.5	qt/a	2-3"W	B								
3	RADIUS	4	SC	0.56	lb ai/a	18	fl oz/a	PRE	A	16.2	181	0	0	0	0	0	0
3	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A								
4	DUAL II MAGNUM	7.64	EC	0.955	lb ai/a	1.0	pt/a	PRE	A	16.0	183	0	0	0	0	0	0
4	CALLISTO	4	SC	0.094	lb ai/a	3	fl oz/a	2-3"W	B								
4	AATREX	90	WG	0.75	lb ai/a	0.83	lb/a	2-3"W	B								
4	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-3"W	B								
4	AMS	100	DRY	1.0	% w/w	1	% w/w	2-3"W	B								
5	DUAL II MAGNUM	7.64	EC	0.955	lb ai/a	1.0	pt/a	PRE	A	16.3	191	1	0	0	0	0	0
5	IMPACT	2.8	SC	0.0109	lb ai/a	0.5	fl oz/a	2-3"W	B								
5	AATREX	90	WG	0.75	lb ai/a	0.83	lb/a	2-3"W	B								
5	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-3"W	B								
5	AMS	100	DRY	1.0	% w/w	1	% w/w	2-3"W	B								
6	DUAL II MAGNUM	7.64	EC	0.955	lb ai/a	1.0	pt/a	PRE	A	16.0	192	2	0	0	0	0	0
6	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	2-3"W	B								
6	AATREX	90	WG	0.75	lb ai/a	0.83	lb/a	2-3"W	B								
6	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-3"W	B								
6	AMS	100	DRY	1.0	% w/w	1	% w/w	2-3"W	B								
7	DUAL II MAGNUM	7.64	EC	0.955	lb ai/a	1.0	pt/a	PRE	A	16.3	180	0	2	0	0	0	0
7	CALLISTO	4	SC	0.094	lb ai/a	3	fl oz/a	6-8"W	D								
7	AATREX	90	WG	0.75	lb ai/a	0.83	lb/a	6-8"W	D								
7	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	6-8"W	D								
7	AMS	100	DRY	1.0	% w/w	1	% w/w	6-8"W	D								
8	DUAL II MAGNUM	7.64	EC	0.955	lb ai/a	1.0	pt/a	PRE	A	16.1	150	0	2	0	0	0	0
8	IMPACT	2.8	SC	0.0109	lb ai/a	0.5	fl oz/a	6-8"W	D								
8	AATREX	90	WG	0.75	lb ai/a	0.83	lb/a	6-8"W	D								
8	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	6-8"W	D								
8	AMS	100	DRY	1.0	% w/w	1	% w/w	6-8"W	D								
9	DUAL II MAGNUM	7.64	EC	0.955	lb ai/a	1.0	pt/a	PRE	A	16.2	166	0	2	0	0	0	0
9	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	6-8"W	D								
9	AATREX	90	WG	0.75	lb ai/a	0.83	lb/a	6-8"W	D								
9	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	6-8"W	D								
9	AMS	100	DRY	1.0	% w/w	1	% w/w	6-8"W	D								
10	CALLISTO	4	SC	0.094	lb ai/a	3	fl oz/a	6-8"W	D	15.5	138	0	4	0	0	0	0
10	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	6-8"W	D								
10	AMS	100	DRY	1.0	% w/w	1	% w/w	6-8"W	D								
11	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	6-8"W	D	16.3	140	0	2	0	0	0	0
11	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	6-8"W	D								
11	AMS	100	DRY	1.0	% w/w	1	% w/w	6-8"W	D								
12	BICEP II MAGNUM	5.5	L	1.925	lb ai/a	2.8	pt/a	PRE	A	15.9	155	0	0	0	0	0	0
13	BICEP II MAGNUM	5.5	L	1.925	lb ai/a	2.8	pt/a	PRE	A	16.4	189	0	0	0	0	0	0
13	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	2-4"W	C								
13	AATREX	90	WG	0.5	lb ai/a	0.556	lb/a	2-4"W	C								
13	DESTINY MSO	100	LIQ	1.0	% v/v	1	% v/v	2-4"W	C								
13	AMS	100	DRY	1.0	% w/w	1	% w/w	2-4"W	C								
14	BICEP II MAGNUM	5.5	L	1.925	lb ai/a	2.8	pt/a	PRE	A	15.7	178	0	0	0	0	0	0
14	CALLISTO	4	SC	0.094	lb ai/a	3	fl oz/a	2-4"W	C								
14	AATREX	90	WG	0.5	lb ai/a	0.556	lb/a	2-4"W	C								
14	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-4"W	C								
14	AMS	100	DRY	1.0	% w/w	1	% w/w	2-4"W	C								
15	GUARDSMAN MAX	5	L	1.67	lb ai/a	2.67	pt/a	PRE	A	16.1	190	0	0	0	0	0	0
15	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	2-4"W	C								
15	AATREX	90	WG	0.5	lb ai/a	0.556	lb/a	2-4"W	C								
15	DESTINY MSO	100	LIQ	1.0	% v/v	1	% v/v	2-4"W	C								
15	AMS	100	DRY	1.0	% w/w	1	% w/w	2-4"W	C								

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

ZEAMX ZEAMX ZEAMX ZEAMX ZEAMX ZEAMX
 Moisture Yield Injury Injury Injury Injury
 Percent bu/A Percent Percent Percent Percent
 10-12-06 10-12-06
 7 DAPO 14 DAPO 28 DAPO 56 DAPO

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	ZEAMX Moisture Percent	ZEAMX Yield bu/A	ZEAMX Injury Percent	ZEAMX Injury Percent	ZEAMX Injury Percent	ZEAMX Injury Percent
16	BICEP II MAGNUM	5.5	L	1.925	lb ai/a	2.8	pt/a	PRE	A	16.4	187	13	2	0	0
16	IMPACT	2.8	SC	0.0109	lb ai/a	0.5	fl oz/a	2-4"W	C						
16	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	2-4"W	C						
16	AATREX	90	WG	0.5	lb ai/a	0.556	lb/a	2-4"W	C						
16	DESTINY MSO	100	LIQ	1.0	% v/v	1	% v/v	2-4"W	C						
16	AMS	100	DRY	1.0	% w/w	1	% w/w	2-4"W	C						
17	LEXAR	3.7	L	3.24	lb ai/a	3.5	qt/a	PRE	A	16.1	185	0	0	0	0
18	GUARDSMAN MAX	5	L	2.5	lb ai/a	4.0	pt/a	PRE	A	16.1	183	0	0	0	0
18	BAS 799 OOH	56	WG	0.175	lb ai/a	5	oz/a	2-4"W	C						
18	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	2-4"W	C						
18	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	2-4"W	C						
19	GUARDSMAN MAX	5	L	2.5	lb ai/a	4.0	pt/a	PRE	A	16.5	187	0	0	0	0
19	BALANCE PRO	4	SC	0.047	lb ai/a	1.5	fl oz/a	PRE	A						
20	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A	16.0	182	0	0	0	0
20	PRINCEP	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A						
20	CELEBRITY PLUS	70	WG	0.206	lb ai/a	4.7	oz/a	2-4"W	C						
20	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	2-4"W	C						
20	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	2-4"W	C						
20	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	2-4"W	C						
LSD (P=.05)										0.81	23.0	1.2	1.5	0.0	0.0
Replicate F										1.142	3.170	0.388	0.257	0.000	0.000
Replicate Prob(F)										0.3298	0.0533	0.6812	0.7749	1.0000	1.0000
Treatment F										0.824	16.892	52.209	4.571	0.000	0.000
Treatment Prob(F)										0.6675	0.0001	0.0001	0.0001	1.0000	1.0000

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Weed Code				AMBTR	AMBTR	AMBTR	ABUTH	ABUTH	ABUTH						
Crop Code				Control	Control	Control	Control	Control	Control						
Rating Data Type				Percent	Percent	Percent	Percent	Percent	Percent						
Rating Unit				14 DAPO	28 DAPO	56 DAPO	14 DAPO	28 DAPO	56 DAPO						
Rating Date															
Trt-Eval Interval															
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
2	LEXAR	3.7 L		1.39 lb ai/a		1.5 qt/a		PRE	A	99	99	99	99	99	99
2	LEXAR	3.7 L		1.39 lb ai/a		1.5 qt/a		2-3"W	B						
3	RADIUS	4 SC		0.56 lb ai/a		18 fl oz/a		PRE	A	97	98	96	98	98	98
3	AATREX	90 WG		1.0 lb ai/a		1.11 lb/a		PRE	A						
4	DUAL II MAGNUM	7.64 EC		0.955 lb ai/a		1.0 pt/a		PRE	A	99	99	99	99	99	99
4	CALLISTO	4 SC		0.094 lb ai/a		3 fl oz/a		2-3"W	B						
4	AATREX	90 WG		0.75 lb ai/a		0.83 lb/a		2-3"W	B						
4	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v		2-3"W	B						
4	AMS	100 DRY		1.0 % w/w		1 % w/w		2-3"W	B						
5	DUAL II MAGNUM	7.64 EC		0.955 lb ai/a		1.0 pt/a		PRE	A	99	99	99	99	99	99
5	IMPACT	2.8 SC		0.0109 lb ai/a		0.5 fl oz/a		2-3"W	B						
5	AATREX	90 WG		0.75 lb ai/a		0.83 lb/a		2-3"W	B						
5	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v		2-3"W	B						
5	AMS	100 DRY		1.0 % w/w		1 % w/w		2-3"W	B						
6	DUAL II MAGNUM	7.64 EC		0.955 lb ai/a		1.0 pt/a		PRE	A	99	99	99	99	99	99
6	IMPACT	2.8 SC		0.0164 lb ai/a		0.75 fl oz/a		2-3"W	B						
6	AATREX	90 WG		0.75 lb ai/a		0.83 lb/a		2-3"W	B						
6	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v		2-3"W	B						
6	AMS	100 DRY		1.0 % w/w		1 % w/w		2-3"W	B						
7	DUAL II MAGNUM	7.64 EC		0.955 lb ai/a		1.0 pt/a		PRE	A	99	99	99	99	99	99
7	CALLISTO	4 SC		0.094 lb ai/a		3 fl oz/a		6-8"W	D						
7	AATREX	90 WG		0.75 lb ai/a		0.83 lb/a		6-8"W	D						
7	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v		6-8"W	D						
7	AMS	100 DRY		1.0 % w/w		1 % w/w		6-8"W	D						
8	DUAL II MAGNUM	7.64 EC		0.955 lb ai/a		1.0 pt/a		PRE	A	99	95	95	95	84	85
8	IMPACT	2.8 SC		0.0109 lb ai/a		0.5 fl oz/a		6-8"W	D						
8	AATREX	90 WG		0.75 lb ai/a		0.83 lb/a		6-8"W	D						
8	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v		6-8"W	D						
8	AMS	100 DRY		1.0 % w/w		1 % w/w		6-8"W	D						
9	DUAL II MAGNUM	7.64 EC		0.955 lb ai/a		1.0 pt/a		PRE	A	99	99	99	97	85	87
9	IMPACT	2.8 SC		0.0164 lb ai/a		0.75 fl oz/a		6-8"W	D						
9	AATREX	90 WG		0.75 lb ai/a		0.83 lb/a		6-8"W	D						
9	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v		6-8"W	D						
9	AMS	100 DRY		1.0 % w/w		1 % w/w		6-8"W	D						
10	CALLISTO	4 SC		0.094 lb ai/a		3 fl oz/a		6-8"W	D	98	98	96	99	93	93
10	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v		6-8"W	D						
10	AMS	100 DRY		1.0 % w/w		1 % w/w		6-8"W	D						
11	IMPACT	2.8 SC		0.0164 lb ai/a		0.75 fl oz/a		6-8"W	D	96	98	98	90	94	94
11	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v		6-8"W	D						
11	AMS	100 DRY		1.0 % w/w		1 % w/w		6-8"W	D						
12	BICEP II MAGNUM	5.5 L		1.925 lb ai/a		2.8 pt/a		PRE	A	85	74	57	77	62	63
13	BICEP II MAGNUM	5.5 L		1.925 lb ai/a		2.8 pt/a		PRE	A	99	99	99	99	99	99
13	IMPACT	2.8 SC		0.0164 lb ai/a		0.75 fl oz/a		2-4"W	C						
13	AATREX	90 WG		0.5 lb ai/a		0.556 lb/a		2-4"W	C						
13	DESTINY MSO	100 LIQ		1.0 % v/v		1 % v/v		2-4"W	C						
13	AMS	100 DRY		1.0 % w/w		1 % w/w		2-4"W	C						
14	BICEP II MAGNUM	5.5 L		1.925 lb ai/a		2.8 pt/a		PRE	A	99	99	99	99	99	99
14	CALLISTO	4 SC		0.094 lb ai/a		3 fl oz/a		2-4"W	C						
14	AATREX	90 WG		0.5 lb ai/a		0.556 lb/a		2-4"W	C						
14	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v		2-4"W	C						
14	AMS	100 DRY		1.0 % w/w		1 % w/w		2-4"W	C						
15	GUARDSMAN MAX	5 L		1.67 lb ai/a		2.67 pt/a		PRE	A	99	99	99	99	99	99
15	IMPACT	2.8 SC		0.0164 lb ai/a		0.75 fl oz/a		2-4"W	C						
15	AATREX	90 WG		0.5 lb ai/a		0.556 lb/a		2-4"W	C						
15	DESTINY MSO	100 LIQ		1.0 % v/v		1 % v/v		2-4"W	C						
15	AMS	100 DRY		1.0 % w/w		1 % w/w		2-4"W	C						

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								AMBTR	AMBTR	AMBTR	ABUTH	ABUTH	ABUTH		
								Control	Control	Control	Control	Control	Control		
								Percent	Percent	Percent	Percent	Percent	Percent		
								14 DAPO	28 DAPO	56 DAPO	14 DAPO	28 DAPO	56 DAPO		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code						
16	BICEP II MAGNUM	5.5	L	1.925	lb ai/a	2.8	pt/a	PRE	A	99	96	97	99		
16	IMPACT	2.8	SC	0.0109	lb ai/a	0.5	fl oz/a	2-4"W	C				99		
16	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	2-4"W	C						
16	AATREX	90	WG	0.5	lb ai/a	0.556	lb/a	2-4"W	C						
16	DESTINY MSO	100	LIQ	1.0	% v/v	1	% v/v	2-4"W	C						
16	AMS	100	DRY	1.0	% w/w	1	% w/w	2-4"W	C						
17	LEXAR	3.7	L	3.24	lb ai/a	3.5	qt/a	PRE	A	98	97	97	99		
18	GUARDSMAN MAX	5	L	2.5	lb ai/a	4.0	pt/a	PRE	A	98	98	99	98		
18	BAS 799 OOH	56	WG	0.175	lb ai/a	5	oz/a	2-4"W	C						
18	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	2-4"W	C						
18	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	2-4"W	C						
19	GUARDSMAN MAX	5	L	2.5	lb ai/a	4.0	pt/a	PRE	A	98	96	96	98		
19	BALANCE PRO	4	SC	0.047	lb ai/a	1.5	fl oz/a	PRE	A						
20	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A	99	99	99	99		
20	PRINCEP	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A						
20	CELEBRITY PLUS	70	WG	0.206	lb ai/a	4.7	oz/a	2-4"W	C						
20	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	2-4"W	C						
20	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	2-4"W	C						
20	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	2-4"W	C						
LSD (P=.05)										2.5	3.8	5.8	2.9	8.3	8.2
Replicate F										2.541	1.539	1.271	1.017	1.733	1.868
Replicate Prob(F)										0.0921	0.2277	0.2923	0.3713	0.1904	0.1683
Treatment F										618.509	283.968	131.311	481.136	63.355	63.231
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Callisto Versus Impact - Sequential Programs.

Project Code: 06-51E-M100 Location: Belleville Research Center
 Investigator: Bryan Young

										AMATA	AMATA	AMATA	CYPES	CYPES	CYPES
										Control	Control	Control	Control	Control	Control
										Percent	Percent	Percent	Percent	Percent	Percent
										14 DAPO	28 DAPO	56 DAPO	14 DAPO	28 DAPO	56 DAPO
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
2	LEXAR	3.7 L		1.39 lb ai/a	1.5 qt/a	1.5 qt/a	PRE	A		99	99	99	96	95	95
2	LEXAR	3.7 L		1.39 lb ai/a	1.5 qt/a	1.5 qt/a	2-3"W	B							
3	RADIUS	4 SC		0.56 lb ai/a	18 fl oz/a	18 fl oz/a	PRE	A		99	99	99	77	79	83
3	AATREX	90 WG		1.0 lb ai/a	1.11 lb/a	1.11 lb/a	PRE	A							
4	DUAL II MAGNUM	7.64 EC		0.955 lb ai/a	1.0 pt/a	1.0 pt/a	PRE	A		99	99	99	97	98	98
4	CALLISTO	4 SC		0.094 lb ai/a	3 fl oz/a	3 fl oz/a	2-3"W	B							
4	AATREX	90 WG		0.75 lb ai/a	0.83 lb/a	0.83 lb/a	2-3"W	B							
4	PRIME OIL COC	100 LIQ		1.0 % v/v	1 % v/v	1 % v/v	2-3"W	B							
4	AMS	100 DRY		1.0 % w/w	1 % w/w	1 % w/w	2-3"W	B							
5	DUAL II MAGNUM	7.64 EC		0.955 lb ai/a	1.0 pt/a	1.0 pt/a	PRE	A		99	99	99	92	89	91
5	IMPACT	2.8 SC		0.0109 lb ai/a	0.5 fl oz/a	0.5 fl oz/a	2-3"W	B							
5	AATREX	90 WG		0.75 lb ai/a	0.83 lb/a	0.83 lb/a	2-3"W	B							
5	PRIME OIL COC	100 LIQ		1.0 % v/v	1 % v/v	1 % v/v	2-3"W	B							
5	AMS	100 DRY		1.0 % w/w	1 % w/w	1 % w/w	2-3"W	B							
6	DUAL II MAGNUM	7.64 EC		0.955 lb ai/a	1.0 pt/a	1.0 pt/a	PRE	A		99	99	99	93	89	89
6	IMPACT	2.8 SC		0.0164 lb ai/a	0.75 fl oz/a	0.75 fl oz/a	2-3"W	B							
6	AATREX	90 WG		0.75 lb ai/a	0.83 lb/a	0.83 lb/a	2-3"W	B							
6	PRIME OIL COC	100 LIQ		1.0 % v/v	1 % v/v	1 % v/v	2-3"W	B							
6	AMS	100 DRY		1.0 % w/w	1 % w/w	1 % w/w	2-3"W	B							
7	DUAL II MAGNUM	7.64 EC		0.955 lb ai/a	1.0 pt/a	1.0 pt/a	PRE	A		99	99	99	95	88	89
7	CALLISTO	4 SC		0.094 lb ai/a	3 fl oz/a	3 fl oz/a	6-8"W	D							
7	AATREX	90 WG		0.75 lb ai/a	0.83 lb/a	0.83 lb/a	6-8"W	D							
7	PRIME OIL COC	100 LIQ		1.0 % v/v	1 % v/v	1 % v/v	6-8"W	D							
7	AMS	100 DRY		1.0 % w/w	1 % w/w	1 % w/w	6-8"W	D							
8	DUAL II MAGNUM	7.64 EC		0.955 lb ai/a	1.0 pt/a	1.0 pt/a	PRE	A		99	99	99	96	88	88
8	IMPACT	2.8 SC		0.0109 lb ai/a	0.5 fl oz/a	0.5 fl oz/a	6-8"W	D							
8	AATREX	90 WG		0.75 lb ai/a	0.83 lb/a	0.83 lb/a	6-8"W	D							
8	PRIME OIL COC	100 LIQ		1.0 % v/v	1 % v/v	1 % v/v	6-8"W	D							
8	AMS	100 DRY		1.0 % w/w	1 % w/w	1 % w/w	6-8"W	D							
9	DUAL II MAGNUM	7.64 EC		0.955 lb ai/a	1.0 pt/a	1.0 pt/a	PRE	A		99	99	99	96	89	89
9	IMPACT	2.8 SC		0.0164 lb ai/a	0.75 fl oz/a	0.75 fl oz/a	6-8"W	D							
9	AATREX	90 WG		0.75 lb ai/a	0.83 lb/a	0.83 lb/a	6-8"W	D							
9	PRIME OIL COC	100 LIQ		1.0 % v/v	1 % v/v	1 % v/v	6-8"W	D							
9	AMS	100 DRY		1.0 % w/w	1 % w/w	1 % w/w	6-8"W	D							
10	CALLISTO	4 SC		0.094 lb ai/a	3 fl oz/a	3 fl oz/a	6-8"W	D		93	96	94	82	55	57
10	PRIME OIL COC	100 LIQ		1.0 % v/v	1 % v/v	1 % v/v	6-8"W	D							
10	AMS	100 DRY		1.0 % w/w	1 % w/w	1 % w/w	6-8"W	D							
11	IMPACT	2.8 SC		0.0164 lb ai/a	0.75 fl oz/a	0.75 fl oz/a	6-8"W	D		88	97	97	78	50	53
11	PRIME OIL COC	100 LIQ		1.0 % v/v	1 % v/v	1 % v/v	6-8"W	D							
11	AMS	100 DRY		1.0 % w/w	1 % w/w	1 % w/w	6-8"W	D							
12	BICEP II MAGNUM	5.5 L		1.925 lb ai/a	2.8 pt/a	2.8 pt/a	PRE	A		99	99	99	83	80	70
13	BICEP II MAGNUM	5.5 L		1.925 lb ai/a	2.8 pt/a	2.8 pt/a	PRE	A		99	99	99	94	89	89
13	IMPACT	2.8 SC		0.0164 lb ai/a	0.75 fl oz/a	0.75 fl oz/a	2-4"W	C							
13	AATREX	90 WG		0.5 lb ai/a	0.556 lb/a	0.556 lb/a	2-4"W	C							
13	DESTINY MSO	100 LIQ		1.0 % v/v	1 % v/v	1 % v/v	2-4"W	C							
13	AMS	100 DRY		1.0 % w/w	1 % w/w	1 % w/w	2-4"W	C							
14	BICEP II MAGNUM	5.5 L		1.925 lb ai/a	2.8 pt/a	2.8 pt/a	PRE	A		99	99	99	97	98	99
14	CALLISTO	4 SC		0.094 lb ai/a	3 fl oz/a	3 fl oz/a	2-4"W	C							
14	AATREX	90 WG		0.5 lb ai/a	0.556 lb/a	0.556 lb/a	2-4"W	C							
14	PRIME OIL COC	100 LIQ		1.0 % v/v	1 % v/v	1 % v/v	2-4"W	C							
14	AMS	100 DRY		1.0 % w/w	1 % w/w	1 % w/w	2-4"W	C							
15	GUARDSMAN MAX	5 L		1.67 lb ai/a	2.67 pt/a	2.67 pt/a	PRE	A		99	99	99	92	97	97
15	IMPACT	2.8 SC		0.0164 lb ai/a	0.75 fl oz/a	0.75 fl oz/a	2-4"W	C							
15	AATREX	90 WG		0.5 lb ai/a	0.556 lb/a	0.556 lb/a	2-4"W	C							
15	DESTINY MSO	100 LIQ		1.0 % v/v	1 % v/v	1 % v/v	2-4"W	C							
15	AMS	100 DRY		1.0 % w/w	1 % w/w	1 % w/w	2-4"W	C							

Callisto Versus Impact - Sequential Programs.

Project Code: 06-51E-M100 Location: Belleville Research Center
 Investigator: Bryan Young

										AMATA	AMATA	AMATA	CYPES	CYPES	CYPES
										Control	Control	Control	Control	Control	Control
										Percent	Percent	Percent	Percent	Percent	Percent
										14 DAPO	28 DAPO	56 DAPO	14 DAPO	28 DAPO	56 DAPO
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code						
16	BICEP II MAGNUM	5.5	L	1.925	lb ai/a	2.8	pt/a	PRE	A	99	99	99	97	96	97
16	IMPACT	2.8	SC	0.0109	lb ai/a	0.5	fl oz/a	2-4"	W C						
16	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	2-4"	W C						
16	AATREX	90	WG	0.5	lb ai/a	0.556	lb/a	2-4"	W C						
16	DESTINY MSO	100	LIQ	1.0	% v/v	1	% v/v	2-4"	W C						
16	AMS	100	DRY	1.0	% w/w	1	% w/w	2-4"	W C						
17	LEXAR	3.7	L	3.24	lb ai/a	3.5	qt/a	PRE	A	99	99	99	97	97	97
18	GUARDSMAN MAX	5	L	2.5	lb ai/a	4.0	pt/a	PRE	A	99	99	99	98	99	99
18	BAS 799 OOH	56	WG	0.175	lb ai/a	5	oz/a	2-4"	W C						
18	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	2-4"	W C						
18	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	2-4"	W C						
19	GUARDSMAN MAX	5	L	2.5	lb ai/a	4.0	pt/a	PRE	A	99	99	99	96	96	96
19	BALANCE PRO	4	SC	0.047	lb ai/a	1.5	fl oz/a	PRE	A						
20	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A	99	99	99	98	98	98
20	PRINCEP	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A						
20	CELEBRITY PLUS	70	WG	0.206	lb ai/a	4.7	oz/a	2-4"	W C						
20	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	2-4"	W C						
20	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	2-4"	W C						
20	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	2-4"	W C						
LSD (P=.05)										6.0	1.2	1.0	6.3	5.6	8.8
Replicate F										1.367	0.137	0.137	0.784	1.090	2.310
Replicate Prob(F)										0.2672	0.8727	0.8727	0.4640	0.3464	0.1131
Treatment F										110.913	3001.675	4000.662	98.976	145.766	60.149
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Callisto Versus Impact - Sequential Programs.

Project Code: 06-51E-M100 Location: Belleville Research Center
 Investigator: Bryan Young

								SETFA		SETFA		SETFA		PANDI		PANDI		PANDI	
								Control		Control		Control		Control		Control		Control	
								Percent		Percent		Percent		Percent		Percent		Percent	
								14 DAPO		28 DAPO		56 DAPO		14 DAPO		28 DAPO		56 DAPO	
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	0
2	LEXAR	3.7 L		1.39 lb ai/a		1.5 qt/a		PRE	A	99	99	99	98	96	95				
2	LEXAR	3.7 L		1.39 lb ai/a		1.5 qt/a		2-3"W	B										
3	RADIUS	4 SC		0.56 lb ai/a		18 fl oz/a		PRE	A	99	99	99	99	90	93				
3	AATREX	90 WG		1.0 lb ai/a		1.11 lb/a		PRE	A										
4	DUAL II MAGNUM	7.64 EC		0.955 lb ai/a		1.0 pt/a		PRE	A	99	99	99	99	98	98				
4	CALLISTO	4 SC		0.094 lb ai/a		3 fl oz/a		2-3"W	B										
4	AATREX	90 WG		0.75 lb ai/a		0.83 lb/a		2-3"W	B										
4	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v		2-3"W	B										
4	AMS	100 DRY		1.0 % w/w		1 % w/w		2-3"W	B										
5	DUAL II MAGNUM	7.64 EC		0.955 lb ai/a		1.0 pt/a		PRE	A	99	99	99	99	98	98				
5	IMPACT	2.8 SC		0.0109 lb ai/a		0.5 fl oz/a		2-3"W	B										
5	AATREX	90 WG		0.75 lb ai/a		0.83 lb/a		2-3"W	B										
5	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v		2-3"W	B										
5	AMS	100 DRY		1.0 % w/w		1 % w/w		2-3"W	B										
6	DUAL II MAGNUM	7.64 EC		0.955 lb ai/a		1.0 pt/a		PRE	A	99	99	99	99	99	99				
6	IMPACT	2.8 SC		0.0164 lb ai/a		0.75 fl oz/a		2-3"W	B										
6	AATREX	90 WG		0.75 lb ai/a		0.83 lb/a		2-3"W	B										
6	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v		2-3"W	B										
6	AMS	100 DRY		1.0 % w/w		1 % w/w		2-3"W	B										
7	DUAL II MAGNUM	7.64 EC		0.955 lb ai/a		1.0 pt/a		PRE	A	99	99	99	98	98	99				
7	CALLISTO	4 SC		0.094 lb ai/a		3 fl oz/a		6-8"W	D										
7	AATREX	90 WG		0.75 lb ai/a		0.83 lb/a		6-8"W	D										
7	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v		6-8"W	D										
7	AMS	100 DRY		1.0 % w/w		1 % w/w		6-8"W	D										
8	DUAL II MAGNUM	7.64 EC		0.955 lb ai/a		1.0 pt/a		PRE	A	99	99	99	98	95	95				
8	IMPACT	2.8 SC		0.0109 lb ai/a		0.5 fl oz/a		6-8"W	D										
8	AATREX	90 WG		0.75 lb ai/a		0.83 lb/a		6-8"W	D										
8	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v		6-8"W	D										
8	AMS	100 DRY		1.0 % w/w		1 % w/w		6-8"W	D										
9	DUAL II MAGNUM	7.64 EC		0.955 lb ai/a		1.0 pt/a		PRE	A	99	99	99	99	97	96				
9	IMPACT	2.8 SC		0.0164 lb ai/a		0.75 fl oz/a		6-8"W	D										
9	AATREX	90 WG		0.75 lb ai/a		0.83 lb/a		6-8"W	D										
9	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v		6-8"W	D										
9	AMS	100 DRY		1.0 % w/w		1 % w/w		6-8"W	D										
10	CALLISTO	4 SC		0.094 lb ai/a		3 fl oz/a		6-8"W	D	50	50	52	23	36	40				
10	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v		6-8"W	D										
10	AMS	100 DRY		1.0 % w/w		1 % w/w		6-8"W	D										
11	IMPACT	2.8 SC		0.0164 lb ai/a		0.75 fl oz/a		6-8"W	D	63	68	70	37	43	48				
11	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v		6-8"W	D										
11	AMS	100 DRY		1.0 % w/w		1 % w/w		6-8"W	D										
12	BICEP II MAGNUM	5.5 L		1.925 lb ai/a		2.8 pt/a		PRE	A	99	99	99	97	95	95				
13	BICEP II MAGNUM	5.5 L		1.925 lb ai/a		2.8 pt/a		PRE	A	99	99	99	99	99	99				
13	IMPACT	2.8 SC		0.0164 lb ai/a		0.75 fl oz/a		2-4"W	C										
13	AATREX	90 WG		0.5 lb ai/a		0.556 lb/a		2-4"W	C										
13	DESTINY MSO	100 LIQ		1.0 % v/v		1 % v/v		2-4"W	C										
13	AMS	100 DRY		1.0 % w/w		1 % w/w		2-4"W	C										
14	BICEP II MAGNUM	5.5 L		1.925 lb ai/a		2.8 pt/a		PRE	A	99	99	99	99	97	97				
14	CALLISTO	4 SC		0.094 lb ai/a		3 fl oz/a		2-4"W	C										
14	AATREX	90 WG		0.5 lb ai/a		0.556 lb/a		2-4"W	C										
14	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v		2-4"W	C										
14	AMS	100 DRY		1.0 % w/w		1 % w/w		2-4"W	C										
15	GUARDSMAN MAX	5 L		1.67 lb ai/a		2.67 pt/a		PRE	A	99	99	99	99	99	99				
15	IMPACT	2.8 SC		0.0164 lb ai/a		0.75 fl oz/a		2-4"W	C										
15	AATREX	90 WG		0.5 lb ai/a		0.556 lb/a		2-4"W	C										
15	DESTINY MSO	100 LIQ		1.0 % v/v		1 % v/v		2-4"W	C										
15	AMS	100 DRY		1.0 % w/w		1 % w/w		2-4"W	C										

Callisto Versus Impact - Sequential Programs.

Project Code: 06-51E-M100 Location: Belleville Research Center
 Investigator: Bryan Young

								SETFA	SETFA	SETFA	PANDI	PANDI	PANDI		
								Control	Control	Control	Control	Control	Control		
								Percent	Percent	Percent	Percent	Percent	Percent		
								14 DAPO	28 DAPO	56 DAPO	14 DAPO	28 DAPO	56 DAPO		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code						
16	BICEP II MAGNUM	5.5	L	1.925	lb ai/a	2.8	pt/a	PRE	A	99	99	99	99		
16	IMPACT	2.8	SC	0.0109	lb ai/a	0.5	fl oz/a	2-4"W	C				99		
16	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	2-4"W	C						
16	AATREX	90	WG	0.5	lb ai/a	0.556	lb/a	2-4"W	C						
16	DESTINY MSO	100	LIQ	1.0	% v/v	1	% v/v	2-4"W	C						
16	AMS	100	DRY	1.0	% w/w	1	% w/w	2-4"W	C						
17	LEXAR	3.7	L	3.24	lb ai/a	3.5	qt/a	PRE	A	98	99	99	98		
18	GUARDSMAN MAX	5	L	2.5	lb ai/a	4.0	pt/a	PRE	A	99	99	99	99		
18	BAS 799 OOH	56	WG	0.175	lb ai/a	5	oz/a	2-4"W	C				98		
18	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	2-4"W	C						
18	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	2-4"W	C						
19	GUARDSMAN MAX	5	L	2.5	lb ai/a	4.0	pt/a	PRE	A	99	99	99	99		
19	BALANCE PRO	4	SC	0.047	lb ai/a	1.5	fl oz/a	PRE	A				96		
20	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A	99	99	99	99		
20	PRINCEP	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A				98		
20	CELEBRITY PLUS	70	WG	0.206	lb ai/a	4.7	oz/a	2-4"W	C						
20	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	2-4"W	C						
20	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	2-4"W	C						
20	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	2-4"W	C						
LSD (P=.05)										8.2	1.1	2.1	7.9	4.4	4.1
Replicate F										0.142	1.000	1.000	1.833	0.196	0.496
Replicate Prob(F)										0.8681	0.3774	0.3774	0.1738	0.8231	0.6131
Treatment F										75.942	4375.461	1074.823	113.837	305.113	334.446
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Trial Comments

1. Protocol: Syngenta, AMVAC, BASF.
2. Ratings: CI 7 DA each POST; CI/WC 14, 28 + 56 DA each POST.
3. Yield.
4. DAPO = Days after various postemergence applications.
 Ratings at 7 DAPO were on 6-15-06, 6-15-06, 6-20-06, and 6-23-06 for PRE only, 2-3"W, 2-4"W, and 6-8"W applications, respectively.
 Ratings at 14 DAPO were on 6-23-06, 6-23-06, 6-27-06, and 6-30-06 for PRE only, 2-3"W, 2-4"W, and 6-8"W applications, respectively.
 Ratings at 28 DAPO were on 7-7-06, 7-7-06, 7-11-06, and 7-14-06 for PRE only, 2-3"W, 2-4"W, and 6-8"W applications, respectively.
 Ratings at 28 DAPO were on 8-4-06, 8-4-06, 8-8-06, and 8-11-06 for PRE only, 2-3"W, 2-4"W, and 6-8"W applications, respectively.
5. Harvested 10-12-06, (2) 30 inch rows by 24 ft.