

# University of Georgia

## UNIFORM HARVEST AID PERFORMANCE EVALUATION-2004

Trial ID: 2004-12  
Location: Georgia

Study Dir.:  
Investigator: Craig Bednarz

Part Rated	DEFOL	DESSIC	OPEN	PERFM	DEFOL				
Rating Data Type	DEFOL	DESSIC	OPEN	PERFM	DEFOL				
Rating Unit	%	%	%	%	%				
Rating Date	30/Sep/2004	30/Sep/2004	30/Sep/2004	30/Sep/2004	7/Oct/2004				
Target Stage	7 DATE	7 DATE	7 DATE	7 DATE	14 DATE				
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	7 DA-A	14 DA-A				
ARM Action Codes	L10	L10	L10	L10	L10				
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg					
					1				
					2				
					3				
					4				
					5				
1	Untreated				70.0 b	6.3 a	77.5 b	62.5 b	77.5 c
2	tribufos	0.56	lb ai/a	55% Open	90.0 a	2.5 a	92.5 a	83.8 a	89.0 b
	ethephon	1	lb ai/a	55% Open					
	thidiazuron	0.05	lb ai/a	55% Open					
3	dimethipin	0.31	lb ai/a	55% Open	87.5 a	5.0 a	95.0 a	80.5 a	86.5 b
	tribufos	0.56	lb ai/a	55% Open					
	ethephon	1	lb ai/a	55% Open					
	agridex	1	% v/v	55% Open					
4	thidiazuron	0.05	lb ai/a	55% Open	81.3 a	2.5 a	92.5 a	76.3 a	88.3 b
	ethephon	1	lb ai/a	55% Open					
5	tribufos	0.56	lb ai/a	55% Open	87.5 a	1.3 a	95.0 a	84.3 a	87.0 b
	ethephon	1	lb ai/a	55% Open					
6	AIM	0.008	lb ai/a	55% Open	85.0 a	5.0 a	93.8 a	80.0 a	98.0 a
	ethephon	0.75	lb ai/a	55% Open					
	thidiazuron	0.05	lb ai/a	55% Open					
	80/20 NIS	0.25	% v/v	55% Open					
	AIM	0.016	lb ai/a	7 DATE					
	agridex	1	% v/v	7 DATE					
7	RESOURCE	8	fl oz/a	55% Open	85.0 a	6.3 a	93.8 a	81.8 a	97.5 a
	ethephon	21	fl oz/a	55% Open					
	agridex	1	% v/v	55% Open					
	RESOURCE	6	fl oz/a	7 DATE					
	agridex	1	% v/v	7 DATE					
LSD (P=.05)					7.62	3.44	3.83	7.28	4.18
Standard Deviation					5.13	2.31	2.58	4.90	2.81
CV					6.12	56.35	2.82	6.25	3.15
Grand Mean					83.75	4.11	91.43	78.43	89.11
Bartlett's X2					5.701	0.141	4.513	2.454	7.387
P(Bartlett's X2)					0.458	0.998	0.341	0.874	0.193
Replicate F					1.845	0.611	4.657	1.617	0.571
Replicate Prob(F)					0.1751	0.6165	0.0141	0.2204	0.6413
Treatment F					6.736	3.000	23.328	9.392	24.996
Treatment Prob(F)					0.0007	0.0327	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Part Rated					DESSIC	OPEN	PERFM	BSTIC	TSTIC
Rating Data Type					DESSIC	OPEN	PERFM	BSTIC	TSTIC
Rating Unit					%	%	%	%	%
Rating Date					7/Oct/2004	7/Oct/2004	7/Oct/2004	15/Oct/2004	15/Oct/2004
Target Stage					14 DATE	14 DATE	14 DATE	21 DATE	21 DATE
Trt-Eval Interval					14 DA-A	14 DA-A	14 DA-A	22 DA-A	22 DA-A
ARM Action Codes					L10	L10	L10	L10	L10
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	6	7	8	9	10
1	Untreated				1.3 a	91.3 b	74.8 c	22.5 a	13.8 a
2	tribufos	0.56 lb ai/a		55% Open	0.0 a	100.0 a	89.0 b	17.5 a	3.5 b
	ethephon	1 lb ai/a		55% Open					
	thidiazuron	0.05 lb ai/a		55% Open					
3	dimethipin	0.31 lb ai/a		55% Open	0.0 a	100.0 a	86.5 b	21.3 a	4.8 b
	tribufos	0.56 lb ai/a		55% Open					
	ethephon	1 lb ai/a		55% Open					
	agridex	1 % v/v		55% Open					
4	thidiazuron	0.05 lb ai/a		55% Open	0.0 a	100.0 a	88.3 b	18.8 a	3.5 b
	ethephon	1 lb ai/a		55% Open					
5	tribufos	0.56 lb ai/a		55% Open	0.0 a	100.0 a	87.0 b	23.8 a	5.3 b
	ethephon	1 lb ai/a		55% Open					
6	AIM	0.008 lb ai/a		55% Open	0.0 a	100.0 a	98.0 a	5.0 b	0.0 c
	ethephon	0.75 lb ai/a		55% Open					
	thidiazuron	0.05 lb ai/a		55% Open					
	80/20 NIS	0.25 % v/v		55% Open					
	AIM	0.016 lb ai/a		7 DATE					
	agridex	1 % v/v		7 DATE					
7	RESOURCE	8 fl oz/a		55% Open	0.0 a	100.0 a	97.5 a	9.5 b	0.0 c
	ethephon	21 fl oz/a		55% Open					
	agridex	1 % v/v		55% Open					
	RESOURCE	6 fl oz/a		7 DATE					
	agridex	1 % v/v		7 DATE					
LSD (P=.05)					1.40	1.40	4.41	4.69	1.94
Standard Deviation					0.94	0.94	2.97	3.16	1.31
CV					529.15	0.96	3.35	18.7	29.74
Grand Mean					0.18	98.75	88.71	16.89	4.39
Bartlett's X2					0.0	0.0	8.842	6.541	3.982
P(Bartlett's X2)					.	.	0.116	0.257	0.408
Replicate F					1.000	1.000	0.701	0.986	4.598
Replicate Prob(F)					0.4155	0.4155	0.5636	0.4215	0.0147
Treatment F					1.000	49.000	27.677	19.855	50.247
Treatment Prob(F)					0.4552	0.0001	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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## UNIFORM HARVEST AID PERFORMANCE EVALUATION-2004

Trial ID: 2004-12  
Location: Georgia

Study Dir.:  
Investigator: Craig Bednarz

### APPLICATION DESCRIPTION

	A	B
<b>Application Date:</b>	23/Sep/2004	4/Oct/2004
<b>Time of Day:</b>	8:55 AM	9:00 AM
<b>Application Method:</b>	Spider	Spider
<b>Application Timing:</b>	60% OB	7 DATE
<b>Applic. Placement:</b>	BROFOL	BROFOL
<b>Air Temp., Unit:</b>	69 F	71 F
<b>% Relative Humidity:</b>	85	76
<b>Wind Velocity, Unit:</b>	0 MPH	0 MPH
<b>Dew Presence (Y/N):</b>	Y	Y
<b>Soil Moisture:</b>	GOOD	GOOD
<b>% Cloud Cover:</b>	0	0

### APPLICATION EQUIPMENT

	A	B
<b>Appl. Equipment:</b>	SPIDER	SPIDER
<b>Operating Pressure:</b>	60 PSI	60 PSI
<b>Nozzle Type:</b>	H-CONE	H-CONE
<b>Nozzle Size:</b>	TX-8	TX-8
<b>Nozzle Spacing, Unit:</b>	18 IN	18 IN
<b>Nozzles/Row:</b>	2	2
<b>Boom Length, Unit:</b>	12 FT	12 FT
<b>Ground Speed, Unit:</b>	5 MPH	5 MPH
<b>Carrier:</b>	WATER	WATER
<b>Spray Volume, Unit:</b>	10 GPA	10 GPA
<b>Propellant:</b>	CO2	CO2
<b>Tank Mix (Y/N):</b>	Y	Y

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### Trial Comments

#### UNIFORM HARVEST-AID PERFORMANCE EVALUATION

Georgia 2004

Craig W. Bednarz  
University of Georgia  
Tifton Campus

The 2004 Uniform Harvest Aid Performance trial was conducted at the University of Georgia, Tifton Campus, Ponder Farm in Tift county Georgia. The soil at this location is a Tifton loamy sand. DPL 449BR was planted on May 5, 2004 at a seeding rate of 3.5 seeds/row foot on 36" rows. All agronomic practices for southeast cotton production were utilized. Harvest aids were applied on September 23, 2004. The crop was approximately 60% open at this time. The site received 0.61" of rainfall 7 d prior to treatment establishment and 6.05" of rainfall during the 7 d after treatment establishment. The site did not receive rainfall for 2 d after treatment establishment. A total of 184 DD 60's were received from treatment establishment to harvest ready.

Performance (PERFM): At 7 days after treatment establishment (DATE) tribufos + ethephon and tribufos + ethephon + thidiazuron performed equally well. At 14 DATE the sequential application treatments (i.e. AIM fb AIM and RESOURCE fb RESOURCE) performed the best.

Defoliation (DEFOL) and Desiccation (DESSC): The defoliation ratings closely followed performance ratings. At 7 DATE tribufos + ethephon and tribufos + ethephon + thidiazuron performed equally well. At 14 DATE the sequential application treatments (i.e. AIM fb AIM and RESOURCE fb RESOURCE) performed the best. The two sequential application treatments in this study performed better in terms of percent defoliation than tribufos + ethephon + thidiazuron, which is considered the standard harvest-aid tank-mix in this region of the southeast.

Percent Open Bolls (PEROB): Few differences in percent open bolls were observed at this location.

Terminal Re-growth (TSTIC) and Basal Re-growth (BSTIC): The sequential application treatments (i.e. AIM fb AIM and RESOURCE fb RESOURCE) performed the best in terms on re-growth control.