

# Grain Sorghum

12-12-06 (06-5D-S120)

Southern Illinois University

Degree Xtra in Grain Sorghum.

Project Code: 06-5D-S120      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:**      10-2-06

**Objective:**  
Evaluate weed control and crop response of Degree Xtra and other herbicides in sorghum.

Weed Code	Common Name	Scientific Name
1.	PANDI panicum, fall	Panicum dichotomiflorum Michx.
2.	XANST cocklebur, common	Xanthium strumarium L.
3.	SETFA foxtail, giant	Setaria faberi Herrm.
4.	AMATA waterhemp, common	Amaranthus rudis Sauer

<b>Crop 1:</b>	SORVU sorghum	<b>Variety:</b>	84662
<b>Planting Method:</b>	Seeded	<b>Planting Date:</b>	5-26-06
<b>Rate:</b>	9 lb/A	<b>Depth:</b>	1.0 IN
<b>Row Spacing:</b>	30 IN		

<b>Plot Width, Unit:</b>	10 FT	<b>Plot Length, Unit:</b>	28 FT	<b>Reps:</b>	4
<b>Tillage Type:</b>	Reduced-Till	<b>Study Design:</b>	Randomized complete block		
<b>Previous Crop, Year:</b>	GLXMA, 2005				
<b>Field Prep./Maintenance:</b>	N 150 LB/A, P205 50 LB/A, K20 150 LB/A				

<b>Soil Name:</b>	Weir	<b>% OM:</b>	1.5	<b>pH:</b>	6.6	<b>CEC:</b>	7
<b>Texture:</b>	Silt loam	<b>Fert. Level:</b>	P1: 81 LB/A, K: 313 LB/A				

## APPLICATION DESCRIPTION

**A**

<b>Application Date:</b>	5-26-06
<b>Time of Day:</b>	17:30
<b>Application Method:</b>	Spray
<b>Application Timing:</b>	PRE
<b>Applic. Placement:</b>	BROSOI
<b>Air Temp., Unit:</b>	90 F
<b>% Relative Humidity:</b>	48
<b>Wind Velocity, Unit:</b>	2 MPH
<b>Dew Presence (Y/N):</b>	N
<b>Soil Moisture:</b>	NORMAL
<b>% Cloud Cover:</b>	10

## CROP STAGE AT EACH APPLICATION

**A**

<b>Crop 1 Code, Stage:</b>	SORVU NA
<b>Height, Unit:</b>	NA NA

## APPLICATION EQUIPMENT

**A**

<b>Appl. Equipment:</b>	CO2 sprayer
<b>Operating Pressure:</b>	40 PSI
<b>Nozzle Type:</b>	Flat fan
<b>Nozzle Size:</b>	8003
<b>Boom Length, Unit:</b>	7.5 FT
<b>Spray Volume, Unit:</b>	20 GPA

NOTES:

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	SORVU		PANDI	PANDI	PANDI	XANST	XANST	XANST	SETFA			
						Moisture Percent	Yield bu/A	Control Percent	Control Percent	Control Percent	Control Percent	Control Percent	Control Percent				
						9-21-06	9-21-06	6-9-06	6-23-06	9-21-06	6-9-06	6-23-06	9-21-06	9-21-06			
						14 DAP	28 DAP	14 DAP	28 DAP	EOS	14 DAP	28 DAP	EOS	EOS			
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Prod Rate	Prod Unit	Grow Stg	Appl Code									
1	DEGREE XTRA	4	L	3.7 lb ai/a	3.7 qt/a	qt/a	PRE	A	20.7	102	99	95	95	98	97	97	99
2	DEGREE XTRA	4	L	2.78 lb ai/a	2.78 qt/a	qt/a	PRE	A	21.2	97	99	94	94	98	95	95	99
3	MICROTECH	4	ME	2.25 lb ai/a	2.25 qt/a	qt/a	PRE	A	20.6	109	99	96	96	99	97	97	99
3	AATREX	90	WG	1.25 lb ai/a	1.39 lb/a	lb/a	PRE	A									
4	MICROTECH	4	ME	1.69 lb ai/a	1.69 qt/a	qt/a	PRE	A	20.5	111	99	95	95	99	98	98	99
4	AATREX	90	WG	1.25 lb ai/a	1.39 lb/a	lb/a	PRE	A									
5	BICEP II MAGNUM	5.5	L	2.9 lb ai/a	2.1 qt/a	qt/a	PRE	A	21.6	113	99	95	95	98	96	96	99
6	BICEP II MAGNUM	5.5	L	2.18 lb ai/a	1.59 qt/a	qt/a	PRE	A	21.3	103	99	93	93	99	99	99	99
7	BULLET	4	SC	3.5 lb ai/a	3.5 qt/a	qt/a	PRE	A	21.5	107	99	96	96	99	98	98	99
8	BULLET	4	SC	2.63 lb ai/a	2.63 qt/a	qt/a	PRE	A	21.2	105	99	95	95	99	98	98	99
9	NONTREATED								21.3	34	0	0	0	0	0	0	0
LSD (P=.05)									1.23	17.1	0.2	2.9	2.9	2.2	2.9	2.9	0.0
Replicate F									0.620	1.281	1.000	4.729	4.729	0.245	1.746	1.746	0.000
Replicate Prob(F)									0.6090	0.3034	0.4098	0.0099	0.0099	0.8644	0.1845	0.1845	1.0000
Treatment F									0.904	17.505	156718.016	996.299	996.299	1924.834	1056.725	1056.725	0.000
Treatment Prob(F)									0.5301	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	1.0000

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	AMATA							
						Control Percent	SORVU GRORED Percent	SORVU GRORED Percent	SORVU STARED Percent	SORVU STARED Percent			
						9-21-06	6-9-06	6-23-06	6-9-06	6-23-06			
						EOS	14 DAP	28 DAP	14 DAP	28 DAP			
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Prod Rate	Prod Unit	Grow Stg	Appl Code					
1	DEGREE XTRA	4	L	3.7 lb ai/a	3.7 qt/a	qt/a	PRE	A	99	0	0	5	5
2	DEGREE XTRA	4	L	2.78 lb ai/a	2.78 qt/a	qt/a	PRE	A	99	0	0	2	2
3	MICROTECH	4	ME	2.25 lb ai/a	2.25 qt/a	qt/a	PRE	A	99	0	0	2	2
3	AATREX	90	WG	1.25 lb ai/a	1.39 lb/a	lb/a	PRE	A					
4	MICROTECH	4	ME	1.69 lb ai/a	1.69 qt/a	qt/a	PRE	A	99	0	0	0	0
4	AATREX	90	WG	1.25 lb ai/a	1.39 lb/a	lb/a	PRE	A					
5	BICEP II MAGNUM	5.5	L	2.9 lb ai/a	2.1 qt/a	qt/a	PRE	A	99	0	0	2	2
6	BICEP II MAGNUM	5.5	L	2.18 lb ai/a	1.59 qt/a	qt/a	PRE	A	99	0	0	1	1
7	BULLET	4	SC	3.5 lb ai/a	3.5 qt/a	qt/a	PRE	A	99	0	0	2	2
8	BULLET	4	SC	2.63 lb ai/a	2.63 qt/a	qt/a	PRE	A	99	0	0	0	0
9	NONTREATED								0	0	0	0	0
LSD (P=.05)									0.0	0.0	0.0	2.9	2.9
Replicate F									0.000	0.000	0.000	0.520	0.520
Replicate Prob(F)									1.0000	1.0000	1.0000	0.6723	0.6723
Treatment F									0.000	0.000	0.000	2.096	2.096
Treatment Prob(F)									1.0000	1.0000	1.0000	0.0771	0.0771

Trial Comments

1. Protocol: Monsanto 01-04-02.
2. Ratings: Sorghum growth reduction and stand reduction 14 DAP, WC 14 + 28 DAP and at harvest.
3. Yield, grain from acetochlor plots must be destroyed.
4. DAP = Days after planting. GRORED = Growth reduction. STARED = Stand reduction.  
EOS = End of season.
5. Harvested 9-21-06, (2) 30 inch rows by 25 ft.