

Tobacco Weed Management in Southern Illinois - 1.

Project Code: 06-Tob-Scates Location: White County, IL
Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: White Co IL USA
Trial Status: Final Updated: 8-28-06

Weed Code	Common Name	Scientific Name
1.	POROL purslane, common	Portulaca oleracea L.
2.	AMATA waterhemp, common	Amaranthus rudis Sauer
3.	SIDSP sida, prickly	Sida spinosa L.

Crop 1:	NIOTA tobacco	Variety:	KT 204
Planting Method:	Transplant	Planting Date:	6-19-06
	P/ROW-FT		IN
Row Spacing:	40 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	40 FT	Reps:	3
Tillage Type:	Reduced-Till	Study Design:	Randomized complete block		

APPLICATION DESCRIPTION

A	
Application Date:	6-17-06
Time of Day:	9:30
Application Method:	Spray
Application Timing:	SURFACE
Applic. Placement:	BROSOI
Air Temp., Unit:	86 F
% Relative Humidity:	44
Wind Velocity, Unit:	3-4 MPH
Dew Presence (Y/N):	N
Soil Moisture:	BELNOR
% Cloud Cover:	30

CROP STAGE AT EACH APPLICATION

A	
Crop 1 Code, Stage:	NIOTA NA
Height, Unit:	NA NA

APPLICATION EQUIPMENT

A	
Appl. Equipment:	CO2 sprayer
Operating Pressure:	40 PSI
Nozzle Type:	Flat fan
Nozzle Size:	8003
Boom Length, Unit:	6.67 FT
Spray Volume, Unit:	20 GPA

NOTES:

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Weed Code		Crop Code		Rating Data Type		Rating Unit		Rating Date		Trt-Eval Interval		NIOTA Injury Percent	NIOTA Injury Percent	NIOTA Chloro Percent	NIOTA Chloro Percent	NIOTA Necrosis Percent	NIOTA Necrosis Percent	NIOTA Stunt Percent	NIOTA Stunt Percent
												7-3-06	7-17-06	7-3-06	7-17-06	7-3-06	7-17-06	7-3-06	7-17-06
												14 DATP	28 DATP	14 DATP	28 DATP	14 DATP	28 DATP	14 DATP	28 DATP
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code										
1	NONTREATED											0	0	0	0	0	0	0	0
2	SPARTAN	4	L	0.125	lb ai/a	4	fl oz/a	SURFACE	A			17	0	0	0	0	0	17	0
3	SPARTAN	4	L	0.187	lb ai/a	6	fl oz/a	SURFACE	A			37	0	0	0	0	0	37	0
4	SPARTAN	4	L	0.25	lb ai/a	8	fl oz/a	SURFACE	A			27	0	0	0	0	0	27	0
5	PROWL H2O	3.8	CS	0.95	lb ai/a	2	pt/a	SURFACE	A			10	0	0	0	0	0	10	0
6	DEVIRINOL	50	DF	1	lb ai/a	2	lb/a	SURFACE	A			17	0	0	0	0	0	17	0
7	COMMAND	3	ME	0.75	lb ai/a	2	pt/a	SURFACE	A			0	0	0	0	0	0	0	0
8	SPARTAN	4	L	0.125	lb ai/a	4	fl oz/a	SURFACE	A			0	0	0	0	0	0	0	0
8	COMMAND	3	ME	0.75	lb ai/a	2	pt/a	SURFACE	A			0	0	0	0	0	0	0	0
9	SPARTAN	4	L	0.187	lb ai/a	6	fl oz/a	SURFACE	A			0	0	0	0	0	0	0	0
9	COMMAND	3	ME	0.75	lb ai/a	2	pt/a	SURFACE	A			0	0	0	0	0	0	0	0
10	SPARTAN	4	L	0.25	lb ai/a	8	fl oz/a	SURFACE	A			3	0	0	0	0	0	3	0
10	COMMAND	3	ME	0.75	lb ai/a	2	pt/a	SURFACE	A			3	0	0	0	0	0	3	0
11	SPARTAN	4	L	0.125	lb ai/a	4	fl oz/a	SURFACE	A			20	0	0	0	0	0	20	0
11	PROWL H2O	3.8	CS	0.95	lb ai/a	2	pt/a	SURFACE	A			20	0	0	0	0	0	20	0
12	SPARTAN	4	L	0.187	lb ai/a	6	fl oz/a	SURFACE	A			0	0	0	0	0	0	0	0
12	PROWL H2O	3.8	CS	0.95	lb ai/a	2	pt/a	SURFACE	A			0	0	0	0	0	0	0	0
13	SPARTAN	4	L	0.25	lb ai/a	8	fl oz/a	SURFACE	A			0	0	0	0	0	0	0	0
13	PROWL H2O	3.8	CS	0.95	lb ai/a	2	pt/a	SURFACE	A			0	0	0	0	0	0	0	0
14	SPARTAN	4	L	0.125	lb ai/a	4	fl oz/a	SURFACE	A			10	0	0	0	0	0	10	0
14	DEVIRINOL	50	DF	0.75	lb ai/a	1.5	lb/a	SURFACE	A			10	0	0	0	0	0	10	0
LSD (P=.05)												26.6	0.0	0.0	0.0	0.0	0.0	26.6	0.0
Replicate F												0.369	0.000	0.000	0.000	0.000	0.000	0.369	0.000
Replicate Prob(F)												0.6952	1.0000	1.0000	1.0000	1.0000	1.0000	0.6952	1.0000
Treatment F												1.670	0.000	0.000	0.000	0.000	0.000	1.670	0.000
Treatment Prob(F)												0.1288	1.0000	1.0000	1.0000	1.0000	1.0000	0.1288	1.0000

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Weed Code	POROL	AMATA	SIDSP
Crop Code			
Rating Data Type	Control Percent	Control Percent	Control Percent
Rating Unit	7-17-06	7-17-06	7-17-06
Rating Date	28 DATP	28 DATP	28 DATP
Trt-Eval Interval			

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	POROL	AMATA	SIDSP
1	NONTREATED									0	0	0
2	SPARTAN	4	L	0.125	lb ai/a	4	fl oz/a	SURFACE	A	99	99	98
3	SPARTAN	4	L	0.187	lb ai/a	6	fl oz/a	SURFACE	A	98	99	98
4	SPARTAN	4	L	0.25	lb ai/a	8	fl oz/a	SURFACE	A	98	99	98
5	PROWL H2O	3.8	CS	0.95	lb ai/a	2	pt/a	SURFACE	A	99	99	96
6	DEVRIKOL	50	DF	1	lb ai/a	2	lb/a	SURFACE	A	66	99	99
7	COMMAND	3	ME	0.75	lb ai/a	2	pt/a	SURFACE	A	99	98	99
8	SPARTAN	4	L	0.125	lb ai/a	4	fl oz/a	SURFACE	A	99	99	99
8	COMMAND	3	ME	0.75	lb ai/a	2	pt/a	SURFACE	A			
9	SPARTAN	4	L	0.187	lb ai/a	6	fl oz/a	SURFACE	A	99	99	99
9	COMMAND	3	ME	0.75	lb ai/a	2	pt/a	SURFACE	A			
10	SPARTAN	4	L	0.25	lb ai/a	8	fl oz/a	SURFACE	A	99	99	99
10	COMMAND	3	ME	0.75	lb ai/a	2	pt/a	SURFACE	A			
11	SPARTAN	4	L	0.125	lb ai/a	4	fl oz/a	SURFACE	A	98	99	99
11	PROWL H2O	3.8	CS	0.95	lb ai/a	2	pt/a	SURFACE	A			
12	SPARTAN	4	L	0.187	lb ai/a	6	fl oz/a	SURFACE	A	99	99	99
12	PROWL H2O	3.8	CS	0.95	lb ai/a	2	pt/a	SURFACE	A			
13	SPARTAN	4	L	0.25	lb ai/a	8	fl oz/a	SURFACE	A	99	99	99
13	PROWL H2O	3.8	CS	0.95	lb ai/a	2	pt/a	SURFACE	A			
14	SPARTAN	4	L	0.125	lb ai/a	4	fl oz/a	SURFACE	A	99	99	99
14	DEVRIKOL	50	DF	0.75	lb ai/a	1.5	lb/a	SURFACE	A			
LSD (P=.05)										25.8	1.0	2.0
Replicate F										0.882	1.000	1.857
Replicate Prob(F)										0.4261	0.3816	0.1762
Treatment F										9.342	5502.640	1448.986
Treatment Prob(F)										0.0001	0.0001	0.0001

Trial Comments

1. Protocol: Philip Morris USA.

2. Ratings:

Crop injury: overall injury, chlorosis, necrosis and plant stunting taken at 14, 28 + 56 days after treatment.

Weed control: visual estimates (0-100%) by individual weed species taken at 28 and 56 days after treatment.

Yield: dry crop weight per plot (approx. 40 plants per plot).

3. DATP = Days after transplant. Chloro = Chlorosis.

4. A significant number of tobacco transplants (about 70%) died shortly after transplanting from a combination of heat stress and poor plant material. This tobacco injury and significant rainfall precluded the collection of valuable data at 56 days after transplant or final yield. In addition, the tobacco injury evaluated at 14 and 28 days after transplant was variable and compromised by the reduced tobacco stand.