

Tobacco Weed Management in Southern Illinois - 2.

Project Code: 06-Tob-Masterson Location: Wayne County, IL
Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

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

Weed Code	Common Name	Scientific Name
1.	AMATA waterhemp, common	Amaranthus rudis Sauer
2.	IPOHE morningglory, ivyleaf	Ipomoea hederacea (L.) Jacq.

Crop 1:	NIOTA tobacco	Variety:	TN 90
Planting Method:	Transplant	Planting Date:	6-15-06
	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

Application Date:	6-13-06	A
Time of Day:	11:00	
Application Method:	Spray	
Application Timing:	SURFACE	
Applic. Placement:	BROSOI	
Air Temp., Unit:	80 F	
% Relative Humidity:	43	
Wind Velocity, Unit:	1-2 MPH	
Dew Presence (Y/N):	N	
Soil Moisture:	BELNOR	
% Cloud Cover:	35	

CROP STAGE AT EACH APPLICATION

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

APPLICATION EQUIPMENT

Appl. Equipment:	CO2 sprayer	A
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										NIOTA	NIOTA	NIOTA	NIOTA	NIOTA	NIOTA	NIOTA	NIOTA
Crop Code										Injury	Injury	Chloro	Chloro	Necrosis	Necrosis	Stunt	Stunt
Rating Data Type										Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit										6-29-06	7-13-06	6-29-06	7-13-06	6-29-06	7-13-06	6-29-06	7-13-06
Rating Date										14 DATP	28 DATP	14 DATP	28 DATP	14 DATP	28 DATP	14 DATP	28 DATP
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	0	0
2	SPARTAN	4 L		0.125	lb ai/a	4 fl oz/a		SURFACE	A	0	0	0	0	0	0	0	0
3	SPARTAN	4 L		0.187	lb ai/a	6 fl oz/a		SURFACE	A	0	0	0	0	0	0	0	0
4	SPARTAN	4 L		0.25	lb ai/a	8 fl oz/a		SURFACE	A	4	0	1	0	2	0	1	0
5	PROWL H2O	3.8 CS		0.95	lb ai/a	2 pt/a		SURFACE	A	0	0	0	0	0	0	0	0
6	DEVIRINOL	50 DF		1	lb ai/a	2 lb/a		SURFACE	A	0	0	0	0	0	0	0	0
7	COMMAND	3 ME		0.75	lb ai/a	2 pt/a		SURFACE	A	2	0	2	0	0	0	2	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	0	0	0	0	0	0	0	0
10	COMMAND	3 ME		0.75	lb ai/a	2 pt/a		SURFACE	A	0	0	0	0	0	0	0	0
11	SPARTAN	4 L		0.125	lb ai/a	4 fl oz/a		SURFACE	A	0	0	0	0	0	0	0	0
11	PROWL H2O	3.8 CS		0.95	lb ai/a	2 pt/a		SURFACE	A	0	0	0	0	0	0	0	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	3	0	2	0	0	0	2	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	0	0	0	0	0	0	0	0
14	DEVIRINOL	50 DF		0.75	lb ai/a	1.5 lb/a		SURFACE	A	0	0	0	0	0	0	0	0
LSD (P=.05)										1.9	0.0	2.0	0.0	0.8	0.0	1.9	0.0
Replicate F										1.517	0.000	0.820	0.000	1.000	0.000	1.625	0.000
Replicate Prob(F)										0.2382	1.0000	0.4516	1.0000	0.3816	1.0000	0.2163	1.0000
Treatment F										4.089	0.000	0.846	0.000	4.000	0.000	0.911	0.000
Treatment Prob(F)										0.0011	1.0000	0.6131	1.0000	0.0013	1.0000	0.5546	1.0000

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Weed Code	AMATA	IPOHE
Crop Code		
Rating Data Type	Control	Control
Rating Unit	Percent	Percent
Rating Date	7-13-06	7-13-06
Trt-Eval Interval	28 DATP	28 DATP

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	AMATA	IPOHE
1	NONTREATED									0	0
2	SPARTAN	4	L	0.125	lb ai/a	4	fl oz/a	SURFACE	A	86	65
3	SPARTAN	4	L	0.187	lb ai/a	6	fl oz/a	SURFACE	A	88	68
4	SPARTAN	4	L	0.25	lb ai/a	8	fl oz/a	SURFACE	A	96	89
5	PROWL H2O	3.8	CS	0.95	lb ai/a	2	pt/a	SURFACE	A	71	75
6	DEVRIKOL	50	DF	1	lb ai/a	2	lb/a	SURFACE	A	13	27
7	COMMAND	3	ME	0.75	lb ai/a	2	pt/a	SURFACE	A	68	17
8	SPARTAN	4	L	0.125	lb ai/a	4	fl oz/a	SURFACE	A	95	83
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	96	96
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	93	85
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	95	93
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	98	95
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	91	96
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	85	88
14	DEVRIKOL	50	DF	0.75	lb ai/a	1.5	lb/a	SURFACE	A		
LSD (P=.05)										18.3	28.6
Replicate F										0.719	4.342
Replicate Prob(F)										0.4967	0.0236
Treatment F										24.517	10.509
Treatment Prob(F)										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. Excessive rainfall precluded the ability to collect data on 56 days after transplant or yield.