

Evaluation of Spartan Charge for Weed Control in Strip-Till Dark Tobacco

2009 – HRREC, Springfield, TN

- Spartan Charge = Spartan + Aim
 - Sulfentrazone + carfentrazone
- Spartan 4F = 4 lb sulfentrazone/gal
- Spartan Charge:
 - 3.15 lb sulfentrazone/gal
 - 0.35 lb carfentrazone/gal
- 4.5 oz/A Spartan Charge =
3.5 oz/A Spartan 4F + 0.75 oz/A Aim
- 5.75 oz/A Spartan Charge =
4.5 oz/A Spartan 4F + 1 oz/A Aim
- Trial was RCBD with 4 replications
- Plots 4 rows, 40 ft. long
- Strip Till dark tobacco
- Area burned down completely with Roundup 1 month prior to initial applications and 6.5 wks prior to tobacco transplanting
- Strips run May 15 prior to 14-day applications
- 14-day applications made May 15
- 1-day applications made May 29
- NL Madole dark tobacco set May 29 (4614 plants/A), 2 hours after 1-day applications
- All applications made broadcast at 15 gal/A
- Poast + COC applied July 24

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Trt #	Treatment	Rate (oz/A)	Timing
1	Untreated Check	4.5 oz/A	
2	Spartan Charge 3.5F	5.75 oz/A	1 day before setting
3	Spartan Charge 3.5F	4.5 oz/A	1 day before setting
4	Spartan 4F	4.5 oz/A	1 day before setting
5	Spartan Charge 3.5F	4.5 oz/A	14 days before setting
6	Spartan Charge 3.5F	5.75 oz/A	14 days before setting
7	Spartan 4F	4.5 oz/A	14 days before setting
8	Spartan 4F + Aim 2EC	9 oz/A + 1 oz/A	1 day before setting
9	Spartan 4F + Aim 2EC	9 oz/A + 1 oz/A	14 days before setting
10	Spartan 4F	9 oz/A	1 day before setting

Evaluation of Spartan Charge for Weed Control in Strip-Till Dark Tobacco 2009 – HRREC, Springfield, TN June 16 plot ratings (2.5 wks after transplanting)

Trt #	Treatment	Grass	Carpetweed	Prickly Sida	Pigweed	Smartweed
		----- 0-100% -----				
1	Untreated	0	0	0	0	0
2	Spartan Charge 4.5 oz 1-day	33	88	80	90	75
3	Spartan Charge 5.75 oz 1-day	45	60	98	98	95
4	Spartan 4F 4.5 oz 1-day	33	80	93	75	50
5	Spartan Charge 4.5 oz 14-day	35	90	80	78	75
6	Spartan Charge 5.75 oz 14-day	40	88	78	73	65
7	Spartan 4F 4.5 oz 14-day	33	85	90	95	98
8	Spartan 4F 9 oz + Aim 1 oz, 1-day	53	98	65	93	100
9	Spartan 4F 9 oz + Aim 1 oz, 14-day	48	95	95	100	98
10	Spartan 4F 9 oz 1 day	60	85	93	85	98
	LSD _{0.05}	28	32	29	27	43

Evaluation of Spartan Charge for Weed Control in Strip-Till Dark Tobacco 2009 – HRREC, Springfield, TN June 22 plot ratings (3.5 wks after transplanting)

Trt #	Treatment	Grass	Carpetweed	Prickly Sida	Pigweed	Smartweed
		----- 0-100% -----				
1	Untreated	0	0	0	0	0
2	Spartan Charge 4.5 oz 1-day	30	40	80	78	75
3	Spartan Charge 5.75 oz 1-day	35	10	93	78	95
4	Spartan 4F 4.5 oz 1-day	35	30	93	65	50
5	Spartan Charge 4.5 oz 14-day	18	30	78	53	75
6	Spartan Charge 5.75 oz 14-day	28	10	78	48	65
7	Spartan 4F 4.5 oz 14-day	28	15	88	70	98
8	Spartan 4F 9 oz + Aim 1 oz, 1-day	28	30	65	68	100
9	Spartan 4F 9 oz + Aim 1 oz, 14-day	38	15	93	78	98
10	Spartan 4F 9 oz 1 day	55	28	88	75	98
	LSD _{0.05}	23	22	31	40	43

Evaluation of Spartan Charge for Weed Control in Strip-Till Dark Tobacco 2009 – HRREC, Springfield, TN June 24 plot ratings (4 wks after transplanting)

Trt #	Treatment	Grass	Pigweed
		----- 0-100% -----	
1	Untreated	0	0
2	Spartan Charge 4.5 oz 1-day	62	82
3	Spartan Charge 5.75 oz 1-day	69	88
4	Spartan 4F 4.5 oz 1-day	65	81
5	Spartan Charge 4.5 oz 14-day	56	78
6	Spartan Charge 5.75 oz 14-day	63	82
7	Spartan 4F 4.5 oz 14-day	59	83
8	Spartan 4F 9 oz + Aim 1 oz, 1-day	74	89
9	Spartan 4F 9 oz + Aim 1 oz, 14-day	68	88
10	Spartan 4F 9 oz 1 day	78	92
	LSD _{0.05}	9	11

Evaluation of Spartan Charge for Weed Control in Strip-Till Dark Tobacco 2009 – HRREC, Springfield, TN July 1 plot ratings (5 wks after transplanting)

Trt #	Treatment	Grass	Carpetweed	Prickly Sida	Pigweed	Smartweed
		----- 0-100% -----				
1	Untreated	0	0	0	0	0
2	Spartan Charge 4.5 oz 1-day	30	40	80	68	75
3	Spartan Charge 5.75 oz 1-day	35	10	83	73	95
4	Spartan 4F 4.5 oz 1-day	35	30	78	60	50
5	Spartan Charge 4.5 oz 14-day	18	30	78	53	75
6	Spartan Charge 5.75 oz 14-day	28	10	78	48	65
7	Spartan 4F 4.5 oz 14-day	28	15	88	70	98
8	Spartan 4F 9 oz + Aim 1 oz, 1-day	28	30	65	68	100
9	Spartan 4F 9 oz + Aim 1 oz, 14-day	38	15	93	78	98
10	Spartan 4F 9 oz 1 day	55	28	73	75	98
	LSD _{0.05}	23	22	35	42	43

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August 26 plot ratings (late-season preharvest rating)

Trt #	Treatment	Grasses	Broadleaf Weeds
		----- 0-100% -----	
1	Untreated	0	0
2	Spartan Charge 4.5 oz 1-day	28	31
3	Spartan Charge 5.75 oz 1-day	37	46
4	Spartan 4F 4.5 oz 1-day	33	41
5	Spartan Charge 4.5 oz 14-day	22	27
6	Spartan Charge 5.75 oz 14-day	26	34
7	Spartan 4F 4.5 oz 14-day	17	49
8	Spartan 4F 9 oz + Aim 1 oz, 1-day	65	60
9	Spartan 4F 9 oz + Aim 1 oz, 14-day	52	51
10	Spartan 4F 9 oz 1 day	66	56
	LSD _{0.05}	17	20

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2009 – HRREC, Springfield, TN – Trial Summary

- Best weed control was from plots that were treated with 9 oz/A Spartan 4F
- Aim provided no obvious benefit to weed control
- Most plots deemed too weedy to harvest so no yield or quality data was collected.