

WEED MANAGEMENT

Cotton Incorporated Project #05-653CA

RESEARCH PROGRESS REPORT 2008



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Cotton Weed Control Summary:

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Fallowbed Burndown Herbicide Study:

The objective of this study was to evaluate the effectiveness of various herbicides at controlling volunteer wheat, field bindweed (*Convolvulus arvensis*), and chickweed (*Stellaria media*). All treatments tank mixed with Roundup Weathermax gave excellent control of volunteer wheat. The treatments that gave excellent control of seedling field bindweed were Shark + Agridex, Roundup Weathermax + Shark + Agridex, Rage + Agridex, Ignite 280 + Agridex, Ignite 280 + Shark + Agridex, NAI-1500 + Agridex at 4 floz + 1% v/v /A, NAI-1500 + Agridex at 8 floz + 1% v/v /A, and Roundup Weathermax + Chateau. The treatments that gave excellent control of chickweed were Roundup Weathermax + Agridex, Roundup Weathermax + Shark + Agridex, Ignite 280 + Agridex, Ignite 280 + Shark + Agridex, NAI-1500 + Agridex at 4 floz + 1% v/v /A, NAI-1500 + Agridex at 8 floz + 1% v/v /A, Roundup Weathermax + Chateau, and Roundup Weathermax + 2,4-D.

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Crop Safety Study of Glytol vs Glytol + Liberty Link Cotton:

The objective of this study was to evaluate the potential of using “Ignite” (*glufosinate-ammonium*) in Glytol + Liberty Link cotton at several growth stages. Crop safety data including crop injury, plant mapping, and yield was evaluated. The Glytol + Liberty Link variety gave the highest lint yield at 1461 to 1566 pounds per acre. All varieties had low cotton injury.

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Crop Safety Application Timing in Wide-Strike Cotton:

The objective of this study was to evaluate the potential of using “Ignite” (*glufosinate-ammonium*) in Wide-Strike Cotton with four different cotton timings and three rates. Crop safety data including crop injury, plant mapping, and yield was evaluated. The Wide-Strike cotton treated with 29 oz. of ignite 280 had the highest lint yield of 1292 pounds per acre.

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Pressure Study in Roundup Ready Cotton:

The objective of this study was to evaluate the effectiveness of various herbicides at controlling tall morningglory (*Ipomoea purpurea*) and to compare the control achieved by spraying at 30 psi and 60 psi. There were no differences between spray pressures. All treatments gave excellent control of tall morningglory by 21 DAT. All treatments showed minor injury under 20 percent.

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Spray Gallonage Comparison in Liberty Link Cotton:

The objective of this study in Tulare was to evaluate the effectiveness of various gallonages of herbicides at controlling tall morningglory (*Ipomoea purpurea*) and johnsongrass (*Sorghum halepense*) in Liberty Link cotton. All treatments produced good to excellent control of tall morningglory. All of the treatments gave fair to good control of johnsongrass. None of the treatments produced any cotton injury. There weren't significant differences in tall morningglory or johnsongrass control with 5 to 20 gpa.

The objective of this study at the WSREC was to evaluate the effectiveness of various gallonages of herbicides at controlling field bindweed (*Convolvulus arvensis*) in Liberty Link cotton. Treatments 2 (Ignite 10 gpa) and 3 (Ignite 15 gpa) were the most effective with a fair control over field bindweed. None of the gallonages produced any cotton injury.

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Spray Gallonage Comparison in Roundup Ready Flex Cotton:

The objective of this study in Tulare was to evaluate the effectiveness of various spray gallonages of Roundup at controlling tall morningglory (*Ipomoea purpurea*) and johnsongrass (*Sorghum halepense*)

in RR Flex cotton. All treatments had good to excellent control over tall morningglory and complete control over johnsongrass. Roundup Weathermax at 10 to 20 gpa numerically gave improved control of tall morningglory compared to the 5 gpa rate. There was no difference between the 10 to 20 gpa rates. There was no difference in spray rates for the Johnsongrass control.

The objective of this study at the WSREC was to evaluate the effectiveness of various gallonages of herbicides at controlling field bindweed (*Convolvulus arvensis*) in RR Flex cotton. All of the treatments gave fair to good control over field bindweed. None of the gallonages produced any cotton injury. There weren't significant differences in field bindweed control with 5 to 20 gpa.

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Tall Morningglory Control in Liberty Link Cotton:

The objective of this study was to determine how effective two different rates of Ignite 280 are at controlling tall morningglory (*Ipomoea purpurea*) in Liberty Link cotton. Both rates per acre of Ignite 280 (Rate/A 29 oz, 43oz) had excellent control over tall morningglory. Neither rate produced any observed cotton injury.

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Tall Morningglory Control in Roundup Ready Flex Cotton:

The objective of this study was to determine how effective two different rates of Roundup Weathermax are at controlling tall morningglory (*Ipomoea purpurea*) in Roundup Ready cotton. Both rates per acre of Roundup Weathermax (Rate/A 22 oz, 32oz) had fair control over tall morningglory after 3 applications. Neither rate produced any cotton injury.

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Field Bindweed Control in Liberty Link Cotton:

The objective of this study was to determine how effective two different rates of Ignite 280 are at controlling field bindweed (*Convolvulus arvensis*) in Liberty Link cotton. Both rates per acre of Ignite 280 (Rate/A 29 oz, 43oz) had poor control over field bindweed. Neither rate produced any observed cotton injury.

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Field Bindweed Control in Roundup Ready Flex Cotton:

The objective of this study was to determine how effective two different rates of Roundup Weathermax are at controlling field bindweed (*Convolvulus arvensis*) in Roundup Ready cotton. Both rates per acre of Roundup Weathermax (Rate/A 22 oz, 32oz) had fair control over field bindweed after 3 applications. Neither rate produced any cotton injury.

Weed Control in Cotton Fallowbed

UCCE — Tulare/Kings Co. — WSREC — 2008

Steve Wright, Lalo Banuelos, Matt Mills, Craig Yancy, Tony Garcia, Katie Wilson

This study was conducted at the West Side Research and Extension Center in Five Points. The treatments were applied on February 26, 2008. The temperature at application was 62°F and the wind speed varied from 0 to 3 mph. All plots were 10 feet by 30 feet, with 4 replications. The treatments were applied using a CO₂ backpack sprayer at 30 psi, 17 gpa, 3 mph, and a mix size of 3 L. The sprayer had 8002 flat fan nozzles. The weeds present at the time of application were volunteer wheat, field bindweed (*Convolvulus arvensis*), and chickweed (*Stellaria media*).

The objective of this study was to evaluate the effectiveness of various herbicides at controlling volunteer wheat, field bindweed, and chickweed. All treatments tank mixed with Roundup Weathermax gave excellent control of volunteer wheat at 21 days after treatment (Table 1). The treatments that gave 90 to 100 percent control of field bindweed after 14 days were 2 (Shark + Agridex), 4 (Roundup Weathermax + Shark + Agridex), 5 (Rage + Agridex), 6 (Ignite 280 + Agridex), 7 (Ignite 280 + Shark + Agridex), 13 (NAI-1500 + Agridex at 4 floz + 1% v/v /A), 14 (NAI-1500 + Agridex at 8 floz + 1% v/v /A), and 15 (Roundup Weathermax + Chateau).

After 14 days reemergence and re-growth of field bindweed occurred (Table 2). The treatments that gave 90 to 100 percent control of chickweed were 3 (Roundup Weathermax + Agridex), 4 (Roundup Weathermax + Shark + Agridex), 6 (Ignite 280 + Agridex), 7 (Ignite 280 + Shark + Agridex), 13 (NAI-1500 + Agridex at 4 floz + 1% v/v /A), 14 (NAI-1500 + Agridex at 8 floz + 1% v/v /A), 15 (Roundup Weathermax + Chateau), and 16 (Roundup Weathermax + 2,4-D) (Table 3).

Table 1.

Volunteer Wheat Percent Control				
Treatments	Rate/A	7 DAT	14 DAT	21 DAT
1. Untreated	---	0	0	0
2. Shark + Agridex	2 floz + 1% v/v	13	13	0
3. Roundup Weathermax + Agridex	29 floz + 1% v/v	100	100	100
4. Roundup Weathermax + Shark + Agridex	29 floz + 1 floz + 1% v/v	96	100	100
5. Rage + Agridex	32 floz + 1% v/v	93	96	96
6. Ignite 280 + Agridex	32 floz + 1% v/v	81	84	78
7. Ignite 280 + Shark + Agridex	32 floz + 1 floz + 1% v/v	84	88	86
8. Roundup Weathermax + Granite	22 floz + 1 floz	94	99	100
9. Roundup Weathermax + Granite	22 floz + 2 floz	98	100	100
10. Roundup Weathermax + GoalTender	22 floz + 8 floz	100	100	100
11. Roundup Weathermax + Granite + GoalTender	22 floz + 1 floz + 8 floz	99	100	100
12. Roundup Weathermax + Granite + GoalTender	22 floz + 2 floz + 8 floz	100	100	100
13. NAI-1500 + Agridex	4 floz + 1% v/v	16	14	10
14. NAI-1500 + Agridex	8 floz + 1% v/v	32	27	0
15. Roundup Weathermax + Chateau	22 floz + 2 oz	100	100	100
16. Roundup Weathermax + 2,4-D	22 floz + 16 floz	95	100	100
LSD .05	---	4.79	6.18	8.93
% CV	---	4.49	5.69	8.56

Table 2.

Field Bindweed Percent Control			
Treatments	Rate/A	7 DAT	14 DAT
1. Untreated	---	0	0
2. Shark + Agridex	2 floz + 1% v/v	100	99
3. Roundup Weathermax + Agridex	29 floz + 1% v/v	81	78
4. Roundup Weathermax + Shark + Agridex	29 floz + 1 floz + 1% v/v	100	100
5. Rage + Agridex	32 floz + 1% v/v	100	100
6. Ignite 280 + Agridex	32 floz + 1% v/v	97	97
7. Ignite 280 + Shark + Agridex	32 floz + 1 floz + 1% v/v	100	100
8. Roundup Weathermax + Granite	22 floz + 1 floz	44	46
9. Roundup Weathermax + Granite	22 floz + 2 floz	61	63
10. Roundup Weathermax + GoalTender	22 floz + 8 floz	84	84
11. Roundup Weathermax + Granite + GoalTender	22 floz + 1 floz + 8 floz	85	84
12. Roundup Weathermax + Granite + GoalTender	22 floz + 2 floz + 8 floz	86	88
13. NAI-1500 + Agridex	4 floz + 1% v/v	100	100
14. NAI-1500 + Agridex	8 floz + 1% v/v	100	100
15. Roundup Weathermax + Chateau	22 floz + 2 oz	96	95
16. Roundup Weathermax + 2,4-D	22 floz + 16 floz	80	86
LSD .05	---	6.62	9.49
% CV	---	5.66	8.08

Table 3.

Chickweed Percent Control				
Treatments	Rate/A	7 DAT	14 DAT	21 DAT
1. Untreated	---	0	0	0
2. Shark + Agridex	2 floz + 1% v/v	43	41	54
3. Roundup Weathermax + Agridex	29 floz + 1% v/v	79	95	95
4. Roundup Weathermax + Shark + Agridex	29 floz + 1 floz + 1% v/v	84	96	96
5. Rage + Agridex	32 floz + 1% v/v	85	85	84
6. Ignite 280 + Agridex	32 floz + 1% v/v	94	100	100
7. Ignite 280 + Shark + Agridex	32 floz + 1 floz + 1% v/v	96	100	100
8. Roundup Weathermax + Granite	22 floz + 1 floz	39	69	69
9. Roundup Weathermax + Granite	22 floz + 2 floz	38	78	78
10. Roundup Weathermax + GoalTender	22 floz + 8 floz	45	80	80
11. Roundup Weathermax + Granite + GoalTender	22 floz + 1 floz + 8 floz	70	85	85
12. Roundup Weathermax + Granite + GoalTender	22 floz + 2 floz + 8 floz	76	89	89
13. NAI-1500 + Agridex	4 floz + 1% v/v	91	91	91
14. NAI-1500 + Agridex	8 floz + 1% v/v	95	98	98
15. Roundup Weathermax + Chateau	22 floz + 2 oz	95	98	99
16. Roundup Weathermax + 2,4-D	22 floz + 16 floz	80	91	91
LSD .05	---	7.29	13.78	16.14
% CV	---	7.39	11.96	13.85

Crop Safety Study of Glytol vs Glytol + Liberty Link Cotton

UCCE – Tulare/Kings Co. – WSREC – 2008

Steve Wright, Lalo Banuelos, Matt Mills, Tony Garcia, Craig Yancy, Katie Wilson

This study was conducted at the Westside Research and Extension Field Station, near Five Points, California on PHY 755 RF cotton. This study had four application timings throughout the season. The sprayer used was a Hagie High Cycle with an 8002 flat fan nozzle at a speed of 4 mph. The spray pressure was 40 psi with a volume of 15 gpa. The plot size was 4-40 inch rows by 40 feet with 4 replications. The first application went out at the two true leave over the top on May 15th. The temperature was 80°F and wind speed of 0 to 2 mph. The second application went at the six leave over the top on June 2nd. The temperature was 78°F and the wind speed was 4 to 6 mph. The third application went out at the lay-by stage (14 to 17 nodes) over the top on July 1st. The temperature was 93°F and the wind speed was 2 to 3 mph. The fourth application went out over the top at the 50 percent open boll on September 23rd. The temperature was 79°F and the wind speed was 0 mph.

Several applications of Ignite (glufosinate ammonium) and glyphosate were applied at different growth stages. Crop safety data including crop injury, plant mapping, and yield was evaluated. The Glytol + Liberty Link variety gave the highest lint yield at 1461 to 1566 pounds per acre. The Glytol variety gave the lowest lint yield at 600 pounds per acre (Table 2). All varieties had low cotton injury (Table 3). Treatment 1 (Untreated) had 19 percent cotton injury on July 14 due to contamination, but the cotton grew back. Treatment 2 (Glyphos Xtra) also got contamination on June 3, which did not grow back and burned the cotton down.

Table 1.

Treatments	Rate G ai/Ha	Rate/A	Timing	Timing	Variety
1. Untreated	--	--	--	--	Glytol
2. Glyphos-Xtra (<i>Glyphosate</i>)	1,121 g	32 fl oz	A B C D	2LF 6-8LF Layby 50% OB	Glytol
3. Untreated	--	--	--	--	Glytol + Liberty Link
4. Glyphos-Xtra (<i>Glyphosate</i>)	1,121 g	32 fl oz	A B C D	2LF 6-8LF Layby 50% OB	Glytol + Liberty Link
5. Ignite 280 (<i>Glufosinate ammonium</i>)	600 g	29 fl oz	A B C D	2LF 6-8LF Layby 50% OB	Glytol + Liberty Link
6. Ignite 280 (<i>Glufosinate ammonium</i>) Glyphos-Xtra (<i>Glyphosate</i>) Ignite 280 (<i>Glufosinate ammonium</i>) Glyphos-Xtra (<i>Glyphosate</i>)	600 g 1,121 g 600 g 1,121 g	29 fl oz 32 fl oz 29 fl oz 32 fl oz	A B C D	2 LF 6-8LF Layby 50% OB	Glytol + Liberty Link
7. Glyphos-Xtra (<i>Glyphosate</i>) Ignite 280 (<i>Glufosinate ammonium</i>) Glyphos-Xtra (<i>Glyphosate</i>) Ignite 280 (<i>Glufosinate ammonium</i>)	1,121 g 600 g 1,121 g 600 g	32 fl oz 29 fl oz 32 fl oz 29 fl oz	A B C D	2 LF 6-8LF Layby 50% OB	Glytol + Liberty Link
8. Glyphos-Xtra + Ignite 280 (<i>Glyphosate</i>) + (<i>Glufosinate ammonium</i>)	1,121 g + 600 g	32 fl oz + 29 fl oz	A B C D	2LF 6-8LF Layby 50% OB	Glytol + Liberty Link

Table 1.

Treatments	Rate G ai/Ha	Timing	Variety	Lint %	Gin T.O %	Lint Yield LBS/A
1. Untreated	NA	NA	Glytol	33.8	28.2	634
2. Glyphos Xtra	1,121 g	ABCD	Glytol	33.7	27.9	649
3. Untreated	NA	NA	Glytol + Liberty Link	37.2	33.0	1566
4. Glyphos Xtra	1,121 g	ABCD	Glytol + Liberty Link	37.0	33.1	1533
5. Ignite 280	600 g	ABCD	Glytol + Liberty Link	37.3	33.0	1461
6. Ignite 280 Glyphos Xtra Ignite 280 Glyphos Xtra	600 g 1,121 g 600 g 1,121 g	A B C D	Glytol + Liberty Link	37.1	32.9	1535
7. Glyphos Xtra Ignite 280 Glyphos Xtra Ignite 280	1,121 g 600 g 1,121 g 600 g	A B C D	Glytol + Liberty Link	37.2	33.1	1538
8. Glyphos Xtra + Ignite 280	1,121 g + 600 g	ABCD	Glytol + Liberty Link	37.3	33.2	1504
LSD .05				0.68	1.07	152.32
%CV				1.27	2.27	7.08

Table 2.

Treatments	Percent Cotton Injury										
	22-May	3-Jun	9-Jun	18-Jun	27-Jun	3-Jul	14-Jul	1-Oct	8-Oct	14-Oct	23-Oct
1. Untreated	0	0	0	0	0	0	19	0	0	0	0
2. Glyphos Xtra	0	13	--	--	--	--	--	--	--	--	--
3. Untreated	0	0	0	0	0	0	0	0	0	0	0
4. Glyphos Xtra	0	0	2	5	2	0	0	0	0	0	0
5. Ignite 280	0	0	0	1	1	0	0	0	0	0	0
6. Ignite 280 Glyphos Xtra Ignite 280 Glyphos Xtra	0	0	1	2	2	0	0	0	0	0	0
7. Glyphos Xtra Ignite 280 Glyphos Xtra Ignite 280	0	0	0	1	1	0	0	0	0	0	0
8. Glyphos Xtra + Ignite 280	0	0	0	0	0	0	0	0	0	0	0

Table 3.

Plant Mapping										
Treatments	27-May		16-Jun		30-Jun		15-Jul		24-Sep	
	Height	Nodes	Height	Nodes	Height	Nodes	Height	Nodes	Height	Nodes
1. Untreated	4.7	6.7	10.7	11.7	21.4	15.5	31.4	18.5	43.0	26.5
2. Glyfos Xtra	4.0	5.6	--	--	--	--	--	--	--	--
3. Untreated	4.6	6.4	11.2	12.2	18.1	14.0	28.1	17.8	44.4	25.4
4. Glyfos Xtra	4.1	6.2	10.7	11.9	20.0	14.3	31.2	18.2	43.7	26.1
5. Ignite 280	4.2	6.5	11.0	12.5	19.0	16.0	28.4	18.0	45.3	26.1
6. Ignite 280 Glyfos Xtra Ignite 280 Glyfos Xtra	4.4	6.5	11.1	11.9	20.5	16.0	30.4	18.5	45.0	26.3
7. Glyfos Xtra Ignite 280 Glyfos Xtra Ignite 280	4.5	6.5	11.8	12.5	21.8	15.5	31.3	18.7	43.7	26.3
8. Glyfos Xtra + Ignite 280	4.4	6.6	11.1	11.7	17.9	16.0	26.2	16.9	43.4	26.9

Crop Safety Application Timing in Wide-Strike Cotton

UCCE - Kings/Tulare Co. - WSREC – 2008

Steve Wright, Lalo Banuelos, Tony Garcia, Matt Mills, Craig Yancy, Katie Wilson

The objective of this study was to evaluate the potential of using “Ignite” (*glufosinate-ammonium*) in Wide-Strike Cotton with four different cotton timings and three rates. This study was conducted at the Westside Research and Extension Field Station, near Five Points, California on PHY 755 RF cotton. This study had four application timings throughout the season. The sprayer used was a Hagie High Cycle with an 8002 flat fan nozzle at a speed of 4 mph. The spray pressure was 40 psi with a volume of 15 gpa. The plot size was 4-40 inch rows by 65 feet with 4 replications. The first application went out at the cotyledons stage over the top on May 8th. The temperature was 74°F and wind speed of 0 to 2 mph. The second application went at the two true leaf over the top on May 15th. The temperature was 78°F and the wind speed was 2 to 4 mph. The third application went out at the 5 to 6 node stage as a directed spray on June 2nd. The temperature was 76°F and the wind speed was 0 to 2 mph. The fourth application went out at the late lay-by stage (18 to 19 nodes) as a directed spray on July 16th. The temperature was 83°F and the wind speed was 2 to 4 mph.

Ignite treatments applied over the top at cotyledon leaf had injury for two weeks after application. By 21 days after application injury was hardly noticeable, except for the 86 oz rate. Ignite treatments applied at the two true leaf showed minimal injury with the 29 oz rate by 19 days after application. The high rates had injury that lasted four weeks. The 5-6 node stage directed spray applications demonstrated minimal crop injury with Ignite at 29 oz. The directed spray at late lay-by application at 18 to 19 nodes showed minimal injury of Ignite at 29 or 43 oz applications. The injury of the Ignite at 43 oz rate was somewhat higher, but all rates of Ignite disappeared by the 21 days after application. In general the 29 oz of Ignite was safe at the different application timings and spray methods used in this trial.

There were minor differences between the treatments in the number of vegetative nodes per plant, the plant height, the height to node ratio, the distribution of bolls on the first, the second, and the third fruiting position and ninety-five percent zone in the first position (Table 5). It appears that the yield results are inconclusive due to low yields. The field had extreme lygus bug pressure throughout the season (10-30 per 50 sweeps). Pix treatments were applied two times at maximum rates and the field was deficient irrigated to manage growth (5 weeks between irrigations).

The field was kept weed free including the untreated (Prowl H2O) only. There were no differences between treatments for yield compared to the untreated. There were some statistical difference but it's difficult to make comments at this time. We are waiting for the fiber quality data.

Table 1.

May 8th Application Over the Top at the Cotyledon Stage													
Percent Cotton Injury													
Treatments	Rate/A	Rate ai/A	15-May	22-May	3-Jun	9-Jun	12-Jun	18-Jun	27-Jun	3-Jul	14-Jul	23-Jul	6-Aug
			7 DAT	14 DAT	26 DAT	32 DAT	35 DAT	41 DAT	50 DAT	56 DAT	67 DAT	76 DAT	90 DAT
1. Staple + Agridex	1 oz + 1% v/v	0.85 oz + 1% v/v	7	3	0	0	0	0	0	0	0	0	0
2. Roundup WeatherMax	32 oz	16 oz	0	0	0	0	0	0	0	0	0	0	0
3. Ignite 280	29 oz	7 oz	13	10	2	0	0	0	0	0	0	0	0
4. Ignite 280	43 oz	10 oz	25	17	5	5	2	1	1	0	0	0	0
5. Ignite 280	86 oz	21 oz	33	25	13	5	4	3	2	0	0	0	0
18. Untreated	---	.85 oz + 1% v/v	0	0	0	0	0	0	0	0	0	0	0

Table 2.

May 15th Application Over the Top at the 2 True Leaf Stage													
Percent Cotton Injury													
Treatments	Rate/A	Rate ai/A	22-May	3-Jun	9-Jun	12-Jun	18-Jun	27-Jun	3-Jul	14-Jul	23-Jul	6-Aug	
			7 DAT	19 DAT	25 DAT	28 DAT	34 DAT	43 DAT	49 DAT	60 DAT	69 DAT	83 DAT	
6. Roundup WeatherMax	32 oz	16 oz	0	0	0	0	1	0	0	0	0	0	
7. Ignite 280	29 oz	7 oz	11	6	4	4	3	1	0	0	0	0	
8. Ignite 280	43 oz	10 oz	28	13	10	8	7	4	2	0	0	0	
9. Ignite 280	86 oz	21 oz	41	28	21	19	13	5	5	0	0	0	
18. Untreated	---	---	0	0	0	0	0	0	0	0	0	0	

Table 3.

June 2nd Application Directed Spray at the 5-6 Node Stage											
Percent Cotton Injury											
Treatments	Rate/A	Rate ai/A	9-Jun	12-Jun	18-Jun	27-Jun	3-Jul	14-Jul	23-Jul	6-Aug	
			7 DAT	10 DAT	16 DAT	25 DAT	31 DAT	42 DAT	51 DAT	65 DAT	
10. Roundup WeatherMax	32 oz	16 oz	0	0	1	0	0	0	0	0	
11. Ignite 280	29 oz	7 oz	8	4	3	1	0	0	0	0	
12. Ignite 280	43 oz	10 oz	23	18	15	5	5	0	0	0	
13. Ignite 280	86 oz	21 oz	36	28	20	6	6	3	1	0	
18. Untreated	---	---	0	0	0	0	0	0	0	0	

Table 4.

July 16th Application Directed Spray at the 18-19 Node Stage				
Percent Cotton Injury				
Treatments	Rate/A	Rate ai/A	23-Jul	6-Aug
			7 DAT	21 DAT
14. Roundup WeatherMax	32 oz	16 oz	2	0
15. Ignite 280	29 oz	7 oz	4	0
16. Ignite 280	43 oz	10 oz	8	0
17. Ignite 280	86 oz	21 oz	16	0
18. Untreated	---	---	0	0

Table 5.

Final Plant Mapping													
Treatments	Rate /A	Rate ai/A	Timin g	# FB	# Veg. Nodes	Height	HNR	% Boll			% Ret. BT 5	95% Zone FP 1	% Ret. 95% Zone
								Pos.1	Pos.2	Pos.3			
1. Staple + Agridex	1 oz + 1% v/v	0.85 oz + 1% v/v	May 8 th	19	6	53	2.1	38.9	27.4	24.2	9.3	25.3	12.3
2. Roundup WeatherMax	32 oz	16 oz		19	6	50	2.0	42.9	27.4	22.6	9.3	22.2	14.2
3. Ignite 280	29 oz	7 oz		20	6	50	2.0	32.7	22.8	15.8	6.7	24.5	11.2
4. Ignite 280	43 oz	10 oz		19	6	51	2.1	34.3	20.6	27.5	6.7	23.8	12.2
5. Ignite 280	86 oz	21 oz		17	6	53	2.3	42.0	19.8	19.8	10.7	21.8	13.8
6. Roundup Weathermax	32 oz	16 oz	May 15 th	18	6	51	2.1	40.0	19.3	18.7	9.0	22.4	17.2
7. Ignite 280	29 oz	7 oz		17	6	50	2.1	36.4	26.5	14.8	16.0	23.9	15.8
8. Ignite 280	43 oz	10 oz		18	6	49	2.0	37.2	20.0	20.7	9.0	23.6	14.7
9. Ignite 280	86 oz	21 oz		18	6	49	2.1	43.3	17.0	21.3	14.0	22.2	17.1
10. Roundup WeatherMax	32 oz	16 oz	June 2 nd	17	6	50	2.2	42.2	29.9	19.0	11.0	22.6	17.6
11. Ignite 280	29 oz	7 oz		18	6	51	2.1	39.5	23.3	18.6	14.0	23.0	14.4
12. Ignite 280	43 oz	10 oz		18	6	49	2.1	38.5	21.0	24.5	13.0	22.7	15.3
13. Ignite 280	86 oz	21 oz		18	6	51	2.1	40.2	23.8	29.5	14.0	22.9	13.8
14. Roundup WeatherMax	32 oz	16 oz	July 16 th	19	6	50	2.0	43.2	24.7	21.9	12.0	22.7	17.9
15. Ignite 280	29 oz	7 oz		17	6	48	2.1	51.4	23.6	11.5	18.0	22.2	22.2
16. Ignite 280	43 oz	10 oz		17	6	48	2.1	45.7	21.2	21.9	14.0	23.5	18.3
17. Ignite 280	86 oz	21 oz		19	5	49	2.0	43.2	28.0	22.4	7.0	24.2	13.7
18. Untreated	---	---		18	6	50	2.1	30.4	14.5	21.7	12.0	22.9	11.8

Table 6.

Treatments	Rate/A	Rate ai/A	Timing	Lint %	Gin T.O. %	Lint Yield /A
1. Staple + Agridex	1 oz + 1% v/v	0.85 oz + 1% v/v	May 8 th	35.3 b	31.2	1113 bc
2. Roundup WeatherMax	32 oz	16 oz		35.2 bc	31.2	1057 c
3. Ignite 280	29 oz	7 oz		35.4 ab	31.7	1069 c
4. Ignite 280	43 oz	10 oz		35.5 ab	31.7	1082 c
5. Ignite 280	86 oz	21 oz		35.4 ab	32.3	1041 c
6. Roundup Weathermax	32 oz	16 oz	May 15 th	36.0 a	32.5	1272 a
7. Ignite 280	29 oz	7 oz		35.4 ab	31.6	1169 abc
8. Ignite 280	43 oz	10 oz		35.6 ab	32.1	1101 c
9. Ignite 280	86 oz	21 oz		35.3 b	31.5	1032 c
10. Roundup WeatherMax	32 oz	16 oz	June 2 nd	35.9 a	33.9	1282 a
11. Ignite 280	29 oz	7 oz		35.5 ab	31.9	1112 c
12. Ignite 280	43 oz	10 oz		35.5 ab	31.8	1098 c
13. Ignite 280	86 oz	21 oz		35.4 ab	31.8	1035 c
14. Roundup WeatherMax	32 oz	16 oz	July 16 th	35.6 ab	32.1	1133 abc
15. Ignite 280	29 oz	7 oz		35.9 a	32.8	1292 a
16. Ignite 280	43 oz	10 oz		35.9 a	31.4	1194 abc
17. Ignite 280	86 oz	21 oz		35.7 ab	32.1	1252 ab
18. Untreated	---	---		35.4 ab	31.7	1039 c
LSD .05				0.73	NS	159.01
% CV				8.51	23.29	8.50

Pressure Study in Roundup Ready Cotton

UCCE — Tulare/Kings Co. — Tulare — 2008

Steve Wright, Lalo Banuelos, Matt Mills, Craig Yancy, Katie Wilson

This trial was conducted with a cooperator in Tulare. The treatments were applied on July 29, 2008 to Phytogen 725 RF cotton. The temperature was 79°F with a wind factor of 0-2 mph. The treatments were applied using a tractor sprayer at a volume of 15 gpa, a mix size of 3 gallons, with 8002 flat fan nozzles directed. The two pressures that were being evaluated were 30 psi and 60. For the 30 psi treatments, the speed was 3.5 mph, and for the 60 psi treatments, the speed was 5 mph. The plot size was four 30 inch rows by 45 feet, with 4 replications.

The objective of this study was to evaluate the effectiveness of various herbicides at controlling tall morningglory (*Ipomoea purpurea*) and to compare the control achieved by spraying at 30 psi and 60 psi. All treatments gave excellent control of tall morningglory by 21 DAT (Table 1). All treatments showed minor injury under 20 percent (Table 2).

Table 1.

Tall Morningglory Percent Control				
Treatments	Rate pr/A	Pressure	5-Aug 7 DAT	19-Aug 21 DAT
1. Roundup Weathermax + AMS	32 floz + 10 lbs	30 psi	82	88
2. Ignite	29 floz	30 psi	84	99
3. Shark + Agridex	2 floz + 1% v/v	30 psi	92	100
4. ET + Agridex	1 floz + 1% v/v	30 psi	86	100
5. Chateau + Agridex	2 oz + 1% v/v	30 psi	83	93
6. Karmex + Agridex	2 # + 1% v/v	30 psi	88	100
7. Roundup Weathermax + AMS	32 floz + 10 lbs	60 psi	79	89
8. Ignite	29 fl oz	60 psi	87	100
9. Shark + Agridex	2 floz + 1% v/v	60 psi	95	100
10. ET + Agridex	1 floz + 1% v/v	60 psi	91	98
11. Chateau + Agridex	2 oz + 1% v/v	60 psi	85	94
12. Karmex + Agridex	2 # + 1% v/v	60 psi	81	91

Table 2.

Percent Cotton Injury				
Treatments	Rate pr/A	Pressure	5-Aug 7 DAT	19-Aug 21 DAT
1. Roundup Weathermax + AMS	32 floz + 10 lbs	30 psi	0	0
2. Ignite	29 floz	30 psi	20	18
3. Shark + Agridex	2 floz + 1% v/v	30 psi	23	14
4. ET + Agridex	1 floz + 1% v/v	30 psi	18	13
5. Chateau + Agridex	2 oz + 1% v/v	30 psi	17	15
6. Karmex + Agridex	2 # + 1% v/v	30 psi	20	14
7. Roundup Weathermax + AMS	32 floz + 10 lbs	60 psi	0	0
8. Ignite	29 fl oz	60 psi	22	17
9. Shark + Agridex	2 floz + 1% v/v	60 psi	24	16
10. ET + Agridex	1 floz + 1% v/v	60 psi	27	18
11. Chateau + Agridex	2 oz + 1% v/v	60 psi	25	19
12. Karmex + Agridex	2 # + 1% v/v	60 psi	13	5

Spray Gallonage Comparison in Liberty Link Cotton

UCCE - Tulare/Kings – Tulare- 2008

Steve Wright, Tulio Macedo, Lalo Banuelos, Craig Yancy, Matt Mills, Tony Garcia, Katie Wilson

This study was established near Tulare on June 24, 2008. Treatments were applied with a CO₂ backpack with four different nozzle types: 8001, 8002, 8003, and 8004 flat fan nozzles at a speed of 3.5 mph. The spray pressure was 30 psi with volumes of 5, 10, 15, and 20 GPA. The plot size was 4-30 inch rows by 30 feet with 4 replications. The temperature was 90°F and the wind speed was 5 to 7 mph. The cotton was 12 to 14 inches tall and in its 10 to 12 node stage. The grower sprayed once before the trial was established with 29 oz of Ignite on June 9th. The cotton variety was Fibermax 966 LL and the weeds present were tall morningglory (*Ipomoea purpurea*) and johnsongrass (*Sorghum halepense*).

The objective of this study was to evaluate the effectiveness of various gallonages of herbicides at controlling tall morningglory and johnsongrass in Liberty Link cotton. All treatments produced excellent control of tall morningglory (Table 1). All of the treatments gave good control of johnsongrass (Table 2). None of the treatments produced any cotton injury (Table 3). There weren't significant differences in tall morningglory or johnsongrass control with 5 to 20 gpa.

Table 1.

Tall Morningglory Percent Control						
Treatment	Prod/A	Gal.	Nozzles	2-Jul 8 DAT	7-Jul 13 DAT	15-Jul 21 DAT
1. Ignite	29.0 floz	5 gpa	8001	99	99	99
2. Ignite	29.0 floz	10 gpa	8002	98	100	96
3. Ignite	29.0 floz	15 gpa	8003	96	97	90
4. Ignite	29.0 floz	20 gpa	8004	98	98	93
LSD .05				NS	NS	NS
% CV				2.32	2.29	6.63

Table 2.

Johnsongrass Percent Control						
Treatment	Prod/A	Gal.	Nozzles	2-Jul 8 DAT	7-Jul 13 DAT	15-Jul 21 DAT
1. Ignite	29.0 floz	5 gpa	8001	68	77	72
2. Ignite	29.0 floz	10 gpa	8002	78	95	85
3. Ignite	29.0 floz	15 gpa	8003	70	73	68
4. Ignite	29.0 floz	20 gpa	8004	82	82	80
LSD .05				NS	NS	NS
% CV				12.42	18.91	16.51

Table 3.

Percent Cotton Injury						
Treatment	Prod/A	Gal.	Nozzles	2-Jul 8 DAT	7-Jul 13 DAT	15-Jul 21 DAT
1. Ignite	29.0 floz	5 gpa	8001	0	0	0
2. Ignite	29.0 floz	10 gpa	8002	0	0	0
3. Ignite	29.0 floz	15 gpa	8003	0	0	0
4. Ignite	29.0 floz	20 gpa	8004	0	0	0

Spray Gallonage Comparison in Liberty Link Cotton for Field Bindweed Control

UCCE - Tulare/Kings & Madera Co. - WSREC – 2008

Steve Wright, Tulio Macedo, Lalo Banuelos, Matt Mills, Craig Yancy, Tony Garcia, Katie Wilson

This study was conducted at the Westside Research and Extension Field Station on July 1, 2008. The sprayer was a Hagie high cycle with four different nozzle types: 8001, 8002, 8003, and 8004 flat fan nozzles at a speed of 3.5 mph. The spray pressure was 30 psi with volumes of 5, 10, 15, and 20 GPA. The plot size was 4-40 inch rows by 30 feet with 3 replications. For the first application on July 1st the temperature was 95°F and the wind speed was 1 to 3 mph. The cotton was 12 to 14 inches tall and in its 10 to 12 leaf stage. Treatment 1 was not sprayed on this date. For the second application on July 8th the temperature was 95°F and the wind speed was 1 to 3 mph. The cotton was 14 to 16 inches tall and in its 12 to 14 node stage. The cotton variety was Fibermax 966 Liberty Link and the weed present was field bindweed (*Convolvulus arvensis*).

The objective of this study was to evaluate the effectiveness of various gallonages of herbicides at controlling field bindweed in Liberty Link cotton. Treatments 2 (Ignite 10 gpa) and 3 (Ignite 15 gpa) were the most effective with a fair control over field bindweed (Table 1). None of the gallonages produced any cotton injury (Table 2).

Table 1.

Field Bindweed Percent Control						
Treatment	Prod/A	Gal.	Nozzles	8-Jul 7 DAT	14-Jul 13 DAT	23-Jul 22 DAT
1. Ignite	29.0 floz	5 gpa	8001	0	7	15
2. Ignite	29.0 floz	10 gpa	8002	68	70	73
3. Ignite	29.0 floz	15 gpa	8003	65	73	73
4. Ignite	29.0 floz	20 gpa	8004	57	63	63
LSD .05				12.21	14.78	13.61
% CV				15.67	16.62	14.56

Table 2.

Percent Cotton Injury						
Treatment	Prod/A	Gal.	Nozzles	8-Jul 7 DAT	14-Jul 13 DAT	23-Jul 22 DAT
1. Ignite	29.0 floz	5 gpa	8001	0	0	0
2. Ignite	29.0 floz	10 gpa	8002	0	0	0
3. Ignite	29.0 floz	15 gpa	8003	0	0	0
4. Ignite	29.0 floz	20 gpa	8004	0	0	0

Spray Gallonage Comparison in Roundup Ready Flex Cotton

UCCE - Tulare/Kings Co. - Tulare – 2008

Steve Wright, Lalo Banuelos, Craig Yancy, Matt Mills, Katie Wilson

This study was established near Tulare on June 24, 2008. Treatments were applied with a CO₂ backpack with four different nozzle types: 8001, 8002, 8003, and 8004 flat fan nozzles at a speed of 3.5 mph. The spray pressure was 30 psi with volumes of 5, 10, 15, and 20 GPA. The plot size was 4-30 inch rows by 30 feet with 4 replications. The temperature was 90°F and the wind speed was 5 to 7 mph. The cotton was 12 to 14 inches tall and in its 10 to 12 node stage. The grower sprayed once before the trial was established with 32 oz of Roundup on June 6th to suppress a heavy population of tall morningglory. The cotton variety was PHY 725 RF and the weeds present were tall morningglory (*Ipomoea purpurea*) and johnsongrass (*Sorghum halepense*).

The objective of this study was to evaluate the effectiveness of various spray gallonages of Roundup at controlling tall morningglory and johnsongrass in RR Flex cotton. All treatments had good to excellent control over tall morningglory and complete control over johnsongrass (Table 1, 2). Roundup Weathermax at 10 to 20 gpa numerically gave improved control of tall morningglory compared to the 5 gpa rate. There was no difference between the 10 to 20 gpa rates. There was no difference in spray rates for the johnsongrass control.

Table 1.

Tall Morningglory Percent Control						
Treatment	Prod/A	Gal.	Nozzles	2-Jul 8 DAT	7-Jul 13 DAT	15-Jul 21 DAT
1. Roundup Weathermax	32.0 floz	5 gpa	8001	83	88	89
2. Roundup Weathermax	32.0 floz	10 gpa	8002	84	94	94
3. Roundup Weathermax	32.0 floz	15 gpa	8003	85	93	96
4. Roundup Weathermax	32.0 floz	20 gpa	8004	88	94	96
LSD .05				NS	NS	NS
% CV				5.04	8.93	6.53

Table 2.

Johnsongrass Percent Control						
Treatment	Prod/A	Gal.	Nozzles	2-Jul 8 DAT	7-Jul 13 DAT	15-Jul 21 DAT
1. Roundup Weathermax	32.0 floz	5 gpa	8001	90	100	100
2. Roundup Weathermax	32.0 floz	10 gpa	8002	93	100	100
3. Roundup Weathermax	32.0 floz	15 gpa	8003	88	100	100
4. Roundup Weathermax	32.0 floz	20 gpa	8004	95	100	100

Table 3.

Percent Cotton Injury						
Treatment	Prod/A	Gal.	Nozzles	2-Jul 8 DAT	7-Jul 13 DAT	15-Jul 21 DAT
1. Roundup Weathermax	32.0 floz	5 gpa	8001	0	0	0
2. Roundup Weathermax	32.0 floz	10 gpa	8002	0	0	0
3. Roundup Weathermax	32.0 floz	15 gpa	8003	0	0	0
4. Roundup Weathermax	32.0 floz	20 gpa	8004	0	0	0

Spray Gallonage Comparison in Roundup Ready Flex Cotton for Field Bindweed Control

UCCE - Tulare/Kings Co. - WSREC – 2008

Steve Wright, Lalo Banuelos, Matt Mills, Katie Wilson

This study was conducted at the Westside Research and Extension Field Station on July 1, 2008. The sprayer was a Hagie high cycle with four different nozzle types: 8001, 8002, 8003, and 8004 flat fan nozzles at a speed of 3.5 mph. The spray pressure was 30 psi with volumes of 5, 10, 15, and 20 GPA. The plot size was 4-40 inch rows by 40 feet with 4 replications. The temperature was 95°F and the wind speed was 1 to 3 mph. The cotton was 12 to 14 inches tall and in its 10 to 12 node stage. The cotton variety was PHY 725 RF and the weed present was field bindweed (*Convolvulus arvensis*).

The objective of this study was to evaluate the effectiveness of various gallonages of herbicides at controlling field bindweed in RR Flex cotton. All of the treatments gave fair to good control over field bindweed (Table 1). None of the gallonages produced any cotton injury (Table 2). There weren't significant differences in field bindweed control with 5 to 20 gpa.

Table 1.

Field Bindweed Percent Control					
Treatment	Gallonage	Nozzles	8 DAT 9-Jul	13 DAT 14-Jul	22 DAT 23-Jul
1. Roundup Weathermax + AMS	5 gpa	8001	22	45	63
2. Roundup Weathermax + AMS	10 gpa	8002	57	70	78
3. Roundup Weathermax + AMS	15 gpa	8003	43	62	67
4. Roundup Weathermax + AMS	20 gpa	8004	67	80	80
LSD .05			NS	NS	NS
%CV			33.72	28.89	13.82

Table 2.

Percent Cotton Injury					
Treatment	Gallonage	Nozzles	8 DAT 9-Jul	13 DAT 14-Jul	22 DAT 23-Jul
1. Roundup Weathermax + AMS	5 gpa	8001	0	0	0
2. Roundup Weathermax + AMS	10 gpa	8002	0	0	0
3. Roundup Weathermax + AMS	15 gpa	8003	0	0	0
4. Roundup Weathermax + AMS	20 gpa	8004	0	0	0

Tall Morningglory Control in Liberty Link Cotton

UCCE - Kings/Tulare Co. - Tulare – 2008

Steve Wright, Lalo Banuelos, Craig Yancy, Matt Mills, Katie Wilson

This study was conducted near Tulare on June 24, 2008. The cotton variety was FM 966 LL and the weeds present at the time of application were tall morningglory (*Ipomoea purpurea*) and johnsongrass (*Sorghum halepense*). The “A” application was sprayed by the grower using his sprayer with 8004 flat fan nozzles at speed 4.5 mph. The spray pressure was 40 psi with a volume of 20 GPA. The “B and C” applications the sprayer used were a CO₂ backpack with a 8002 flat fan nozzles at a speed of 3.5 mph. The spray pressure was 30 psi with a volume of 15 GPA. The plot size was 4-30 inch rows by 30 feet with 4 replications. The first application consisted of 29 oz of Ignite which was done by the grower on June 9th. For the second application on June 24th the temperature was 90°F and the wind speed was 1 to 3 mph. The cotton was 10 to 12 inches tall and in its 8 to 10 leaf stage. The third application was on July 29th with a temperature of 82 °F and a wind speed of 1 to 3 mph. The cotton was 12 to 24 inches tall.

The objective of this study was to determine the most effective rate/A of Ignite 280 at controlling tall morningglory (*Ipomoea purpurea*) and johnsongrass (*Sorghum halepense*) in Liberty Link cotton. Both rates of Ignite gave excellent control of tall morningglory (*Ipomoea purpurea*) (Table 1). Johnsongrass (*Sorghum halepense*) control was fair for all treatments (Table 2). There was no injury with any Ignite rates (Table 3). Two to three applications were needed to maintain tall morningglory (*Ipomoea purpurea*) control.

Table 1.

Tall Morningglory Percent Control							
Treatments	Rate/A	Timing	2-Jul	7-Jul	15-Jul	29-Jul	5-Aug
1. Ignite 280	29 oz	ABC	100	100	91	100	80
2. Ignite 280	29 oz	A					
Ignite 280	43 oz	B	99	99	87	100	80
Ignite 280	29 oz	C					
3. Ignite 280	29 oz	A	90	90	73	40	0

Table 2.

Johnsongrass Percent Control							
Treatments	Rate/A	Timing	2-Jul	7-Jul	15-Jul	29-Jul	5-Aug
1. Ignite 280	29 oz	ABC	76	76	65	53	65
2. Ignite 280	29 oz	A					
Ignite 280	43 oz	B	49	77	69	59	34
Ignite 280	29 oz	C					
3. Ignite 280	29 oz	A	43	43	50	34	14

Table 3.

Percent Cotton Injury							
Treatments	Rate/A	Timing	2-Jul	7-Jul	15-Jul	29-Jul	5-Aug
1. Ignite 280	29 oz	ABC	0	0	0	0	0
2. Ignite 280	29 oz	A					
Ignite 280	43 oz	B	0	0	0	0	0
Ignite 280	29 oz	C					
3. Ignite 280	29 oz	A	0	0	0	0	0

Tall Morningglory Control in Roundup Ready Flex Cotton
 UCCE - Kings/Tulare Co. - Tulare – 2008
 Steve Wright, Lalo Banuelos, Craig Yancy, Matt Mills, Katie Wilson

This study was conducted near Tulare on June 24, 2008. The cotton variety was Phytogen 725 RF and the weeds present at the time of application were tall morningglory (*Ipomoea purpurea*) and johnsongrass (*Sorghum halepense*). The “A” application was sprayed by the grower using his sprayer with 8004 flat fan nozzles at speed 4.5 mph. The spray pressure was 40 psi with a volume of 20 GPA. The “B and C” applications the sprayer was a CO₂ backpack with a 8002 flat fan nozzles at a speed of 3.5 mph. The spray pressure was 30 psi with a volume of 15 GPA. The first application consisted of 32 oz of Roundup which was done by the grower on June 6th. For the second application on June 24th the temperature was 90°F and the wind speed was 5 to 7 mph. The cotton was 10 to 12 inches tall and in its 8 to 10 leaf stage. The third application was on July 29th with a temperature of 82°F and a wind speed of 0 to 2 mph. The cotton was 12 to 24 inches tall.

The objective of this study was to determine the most effective rate/A of Roundup Weathermax at controlling tall morningglory and johnsongrass in Roundup Ready Flex cotton. Both rates of Roundup Weathermax gave only fair control of tall morningglory (*Ipomoea purpurea*) (Table 1). Both rates of Roundup Weathermax gave excellent control of johnsongrass (*Sorghum halepense*) (Table 2). There was no injury with any Roundup Weathermax rates (Table 3).

Table 1.

Tall Morningglory Percent Control						
Treatments	Rate/A	Timing	2-Jul	7-Jul	15-Jul	5-Aug
1. Roundup Weathermax	32 oz	A				
Roundup Weathermax	22 oz	BC	74	74	73	63
2. Roundup Weathermax	32 oz	ABC	86	86	86	66
3. Roundup Weathermax	32 oz	A	73	73	60	0

Table 2.

Johnsongrass Percent Control						
Treatments	Rate/A	Timing	2-Jul	7-Jul	15-Jul	5-Aug
1. Roundup Weathermax	32 oz	A				
Roundup Weathermax	22 oz	BC	93	93	86	90
2. Roundup Weathermax	32 oz	ABC	99	99	94	96
3. Roundup Weathermax	32 oz	A	99	99	79	94

Table 3.

Percent Cotton Injury						
Treatments	Rate/A	Timing	2-Jul	7-Jul	15-Jul	5-Aug
1. Roundup Weathermax	32 oz	A				
Roundup Weathermax	22 oz	BC	0	0	0	0
2. Roundup Weathermax	32 oz	ABC	0	0	0	0
3. Roundup Weathermax	32 oz	A	0	0	0	0

Field Bindweed Control in Liberty Link Cotton
 UCCE - Kings/Tulare Co. - WSREC – 2008
 Steve Wright, Lalo Banuelos, Tony Garcia, Katie Wilson

This study was conducted in the Westside Research and Extension Field Station and on May 15, 2008. The sprayer was a Hagie high cycle with a 8002 flat fan nozzle at a speed of 4 mph and there were 3 applications. The spray pressure was 40 psi with a volume of 15 gpa. The plot size was 4-40 inch rows by 30 feet with 4 replications. For the first application on May 15th the temperature was 78°F and the wind speed was 0 to 2 mph. The cotton was 2 to 3 inches tall in its 2 leaf stage and the field bindweed was 5 to 14 inches in diameter. For the second application on June 2nd the temperature was 75°F and the wind speed was 1 to 3 mph. The cotton was 5 to 6 inches tall and in its 6 to 7 leaf stage. For the third application on July 1st the temperature was 95°F and the wind speed was 1 to 3 mph. The cotton was 14 to 16 inches tall and in its 13 to 14 node stage. The cotton variety was Fibermax 966 LL and the weed present was field bindweed (*Convolvulus arvensis*).

The objective of this study was to determine how effective two different rates of Ignite 280 are at controlling field bindweed in Liberty Link cotton. Both rates per acre of Ignite 280 had poor control over field bindweed (Table 1). Neither rate produced any observed cotton injury (Table 2).

Table 1.

Field Bindweed Percent Control								
Treatments	Rate/A	22-May 7 DAT	3-Jun 19 DAT	9-Jun 7 DAT	18-Jun 16 DAT	27-Jun 25 DAT	3-Jul 2 DAT	8-Jul 7 DAT
1. Ignite 280	29 oz	20	29	25	13	21	16	24
2. Ignite 280	43 oz	45	48	39	15	14	15	11
3. Untreated		0	0	0	0	0	0	0

Table 2.

Percent Cotton Injury								
Treatments	Rate/A	22-May 7 DAT	3-Jun 19 DAT	9-Jun 7 DAT	18-Jun 16 DAT	27-Jun 25 DAT	3-Jul 2 DAT	8-Jul 7 DAT
1. Ignite 280	29 oz	0	0	0	0	0	0	0
2. Ignite 280	43 oz	0	0	0	0	0	0	0
3. Untreated		0	0	0	0	0	0	0

Field Bindweed Control in Roundup Ready Flex Cotton

UCCE - Kings/Tulare Co. - WSREC – 2008

Steve Wright, Lalo Banuelos, Tony Garcia, Katie Wilson

This study was conducted at the Westside Research and Extension Field Station on May 15, 2008. The sprayer was a Hagie high cycle with a 8002 flat fan nozzle at a speed of 4 mph and there were 3 applications. The spray pressure was 40 psi with a volume of 15 gpa. The plot size was 4-40 inch rows by 30 feet with 4 replications. For the first application on May 15th the temperature was 78°F and the wind speed was 0 to 2 mph. The cotton was 2 to 3 inches tall in its 2 leaf stage and the field bindweed was 5 to 14 inches in diameter. For the second application on June 2nd the temperature was 75°F and the wind speed was 1 to 3 mph. The cotton was 7 to 8 inches tall and in its 6 to 7 leaf stage. For the third application on July 1st the temperature was 95°F and the wind speed was 1 to 3 mph. The cotton was 15 to 18 inches tall and in its 14 to 16 node stage. The cotton variety was PHY 725 RF and the weed present was field bindweed (*Convolvulus arvensis*).

The objective of this study was to determine how effective two different rates of Roundup Weathermax are at controlling field bindweed in Roundup Ready cotton. Both rates per acre of Roundup Weathermax had fair control over field bindweed after 3 applications (Table 1). Neither rate produced any cotton injury (Table 2).

Table 1.

Field Bindweed Percent Control								
Treatments	Rate/A	22-May 7 DAT	3-Jun 19 DAT	9-Jun 7 DAT	18-Jun 16 DAT	27-Jun 25 DAT	3-Jul 2 DAT	8-Jul 7 DAT
1. Roundup Weathermax	22 oz	18	33	28	14	59	68	75
2. Roundup Weathermax	32 oz	18	30	25	24	76	84	66
3. Untreated		0	0	0	0	0	0	0

Table 2.

Percent Cotton Injury								
Treatments	Rate/A	22-May 7 DAT	3-Jun 19 DAT	9-Jun 7 DAT	18-Jun 16 DAT	27-Jun 25 DAT	3-Jul 2 DAT	8-Jul 7 DAT
1. Roundup Weathermax	22 oz	0	0	0	0	0	0	0
2. Roundup Weathermax	32 oz	0	0	0	0	0	0	0
3. Untreated		0	0	0	0	0	0	0