

PEST MANAGEMENT NEWS

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Refugio County Cotton Stalk Destruction Meeting

Date: Thursday, September 20, 2012

Time: 9:00 a.m.

Location: South of Tivoli on Hwy 35 at Zarsky Rd.

1 hour CEU in IPM

Topic discussed will be the results of stalk destruction research and other IPM issues.

Cotton stalk destruction is a necessary component of boll weevil eradication. Without area wide stalk destruction, the eradication of the boll weevil is not possible. Past research has indicated the best method of controlling cotton plants is the application of 2,4-D herbicide at 1lb/A.

Results of research trials in Calhoun and Refugio Counties from 2011 and 2012 indicate:

- Application of 2,4-D can be made any time after shredding or picking with similar results.
- Pulled stalks without herbicide application does not achieve 100% control of cotton plants.
- Surviving pulled stalks will have squares at 35 days after pulling.
- 2,4-D treated plots did not have hostable plants 35 days after applications.
- 2,4-D (32 oz/A) provided better control of cotton plants than all rates of dicamba.

After last year's research, my preferred method of stalk destruction is application of 2,4-D (1 lb/A) to standing, shredded, or shredded and pulled stalks. Any field activity without the herbicide application will not result in fields being non-hostable.

Research funded by Cotton Inc. through the Texas State Support Committee.



Table 1. Percent control of cotton stalks and percent of hostable plants with 2,4-D at various timings after **stalk shredding** at 30 to 44 days after initial treatment (Refugio County, 2012).

Days After First/Last Application				% Control				% Hostable Plants			
				9/5/2012		9/12/2012		9/5/2012		9/12/2012	
				37	30	44	37	37	30	44	37
1	Untreated Check			0	d	1.3	c	22.5	a	28.8	a
2	Weedar 64	32 oz/a	0 day post shredding	17.5	ab	16.3	b	0	b	0	b
	Agri-Dex	0.25 % v/v									
3	Weedar 64	32 oz/a	1 day post shredding	7.5	cd	12.5	bc	0	b	0	b
	Agri-Dex	0.25 % v/v									
4	Weedar 64	32 oz/a	2 day post shredding	6.3	cd	11.3	bc	0	b	0	b
	Agri-Dex	0.25 % v/v									
5	Weedar 64	32 oz/a	4 day post shredding	10	bc	15	b	0	b	0	b
	Agri-Dex	0.25 % v/v									
6	Weedar 64	32 oz/a	7 day post shredding	18.8	a	28.8	a	0	b	0	b
	Agri-Dex	0.25 % v/v									
LSD (P=.10)				8.24		11.28		11.22		16.45	
Standard Deviation				6.65		9.1		9.05		13.27	
CV				66.46		64.22		241.4		276.9	
Treatment Prob(F)				0.0097		0.0196		0.0149		0.0393	

Table 2. Percent control of cotton stalks and percent of hostable plants with 2,4-D at various timings after **picker harvest** at 30 to 44 days after initial treatment (Refugio County, 2012).

Days After First/Last Applic.				% Control				% Hostable Plants			
				9/5/2012		9/12/2012		9/5/2012		9/12/2012	
				37	30	44	37	37	30	44	37
1	Untreated Check			37.5	b	51.3	b	27.5	a	42.5	a
2	Weedar 64	32 oz/a	0 day post harvest	98.8	a	97.5	a	0	b	0	b
	Agri-Dex	0.25 % v/v									
3	Weedar 64	32 oz/a	1 day post harvest	95	a	95	a	0	b	0	b
	Agri-Dex	0.25 % v/v									
4	Weedar 64	32 oz/a	2 day post harvest	96.3	a	95	a	0	b	0	b
	Agri-Dex	0.25 % v/v									
5	Weedar 64	32 oz/a	4 day post harvest	97.5	a	100	a	0	b	0	b
	Agri-Dex	0.25 % v/v									
6	Weedar 64	32 oz/a	7 day post harvest	81.3	a	86.3	a	0	b	0	b
	Agri-Dex	0.25 % v/v									
LSD (P=.10)				24.12		21.36		12.65		16.59	
Standard Deviation				19.46		17.23		10.21		13.39	
CV				23.06		19.69		222.68		188.97	
Treatment Prob(F)				0.003		0.0102		0.0078		0.0018	