

**STAPLE®+ GLYPHOSATE COMBINATIONS FOR IMPROVED WEED CONTROL IN ROUNDUP**

**READY COTTON®**

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**Abstract**

Programs using two new technologies Staple herbicide and Roundup ready cotton were compared in an attempt to maximize the strengths of both of these systems into one herbicide program.

**Introduction**

In 1996 & 1997 tests were designed and conducted throughout the cotton belt to test both Staple pre and Staple + glyphosate tank mixes in Roundup ready cotton.

**Discussion**

Preemergence treatments alone failed to give commercial control of key weeds such as pitted and entireleaf morninglory, yellow nutsedge, and sicklepod. All preemergence followed by postemergence programs improved weed control on all weed species tested. A preemergence followed by postemergence program containing Staple pre provided better weed control than a sequential Roundup program. Pitted & entireleaf morninglory, yellow nutsedge, and sicklepod control was improved the most from a pre followed by post program. Tank mix combinations of Staple + glyphosate improved overall weed control versus glyphosate alone. Weed control improved on key species such as pitted morninglory, entireleaf morninglory, sicklepod, prickly sida, hemp sesbania, and yellow nutsedge.

**Summary**

Both a Staple pre fb post program or a Staple + glyphosate tank mix improved overall weed control over a sequential glyphosate program, with no antagonism or crop injury problems.

Table 1. Staple pre in a Roundup Program (% Control)

Treatment	Rate oz pr/a	appl meth	ENTIRE MG	PITTED MG
Staple	0.6	PRE	52	55
Staple+Cot.	0.6+30	PRE	79	80
Staple/RU	0.6/1 Qt	PRE/POST	56	53
Sta fb Sta/RU	0.6fb 0.6/1 qt	PRE/POST	59	52
Roundup	1 Qt	POST	--	--
Roundup2X	1 Qt	POST	--	--
Untreated check			0	0

Table 2. Staple pre in a Roundup Program (% Control)

Treatment	Rate oz pr/a	appl meth	ENTIRE MG	PITTED MG
Staple	0.6	PRE	56	55
Staple+Cot.	0.6+30	PRE	75	80
Staple/RU	0.6/1Qt	PRE/POST	90	87
Sta fb Sta/RU	0.6fb 0.6/1qt	PRE/POST	92	88
Roundup	1Qt	POST	87	83
Roundup2X	1 Qt	POST	82	83
Untreated check			0	0

Table 3. Staple + glyphosate Tank Mix Combinations (% Control)

Treatment	Rate oz pr/a	ENTIRE MG	PITTED MG
Staple	0.6	69	70
Staple	1.2	94	90
Roundup	1 pt	69	50
Roundup	1.5 pt	76	62
Staple/RU	0.6+1.5 pt	95	89
Untreated check		0	0

Table 4. Staple + glyphosate Tank Mix Combinations (% Control)

Treatment	Rate oz pr/a	ENTIRE MG	PITTED MG
Staple	0.6	69	70
Staple	1.2	94	90
Roundup	1 pt	69	50
Roundup	1.5 pt	76	62
Staple/RU	0.6+1.5 pt	95	89
Untreated check		0	0

Table 5. Staple + glyphosate Tank Mix Combinations (% Control)

Treatment	Rate oz pr/a	YELLOW NUTSEDGE	S. POD
Staple	0.6	33	64
Staple	1.2	47	87
Roundup	1 pt	58	80
Roundup	1.5 pt	63	85
Staple/RU	0.6+1.5 pt	75	94
Untreated Check		0	0