Weed control with POST applied Steadfast tank mixes in corn at Lamberton, MN in 2004. Getting, Jodie K. and Bruce D. Potter. The objective of this study was to evaluate Steadfast tank mixed with Callisto + atrazine or Lumax for annual grass and annual broadleaf weed control in corn. This study was conducted on a Normania loam soil containing 4.2% organic matter, pH 6.5 and soil test P and K levels of 60 and 316 lb/A, respectively. A randomized complete block design with four replications and a plot size of 10 by 30 ft was used. The site was planted to oats in 2003 and was fall chiseled. The area was fertilized with 180 lb/A of nitrogen as urea. On May 3, 2004, Dekalb 'DK 4295' glyphosate resistant field corn was planted in 30-inch rows at a seeding rate of 33,000 seeds/A. Cyfluthrin + tebupirimphos (Aztec 2.1G) was applied at 6.7 oz/1000 row feet in a T-band for the control of northern corn rootworm larvae. All treatments were applied with a tractor-mounted sprayer delivering 20 gpa at a pressure of 40 psi. The sprayer was equipped with 8002 flat-fan nozzles spaced 15 inches apart on the boom. Application dates, environmental conditions, plant sizes and rainfall data are listed below:

Date	May 4	June 4
Treatment	PRE	POST
Temperature (F)		
Air	45	66
soil (4 inch)	50	62
Relative humidity (%)	53	49
Wind (mph)	NW 10	S 8
Sky	clear	cloudy
Soil moisture	dry	dry
Corn		
leaf no.	-	V3
height (inch)	-	5
Yellow foxtail		
leaf no.	-	2 to 4
height (inch)	-	2 to 4
no./ft^2	-	82
Common lambsquarters		
leaf no.	-	3 to 5
height (inch)	-	1 to 3
no./ft^2	-	2
Tall waterhemp		
leaf no.	-	1 to 2
height (inch)	-	0.25 to 1
no./ft^2	-	1
Wild buckwheat		
leaf no.	-	2 to 4
height (inch)	-	1 to 2
no./ft^2	-	<1
Rainfall after application (inch)		
1 week	0.07	1.16
2 week	1.29	1.57
3 week	2.95	0.47

(Southwest Research and Outreach Center, University of Minnesota, Lamberton).

Table. Weed control with POST applied Steadfast tank mixes in corn at Lamberton, MN in 2004 (Getting and Potter).

		Yellow foxtail				Common lambsquarters				Tall waterhemp				Wild buckwheat			
Treatment[a]	Rate	6/4	6/14	7/25	9/9	6/4	6/14	7/25	9/9	6/4	6/14	7/25	9/9	6/14	7/25	9/9	Yield
POST I (2 to 4-inch weeds)	(oz/A, pt/A, lb/A or %)	---------(% control)----------															(bu/A)[b]
Steadfast + Callisto + Aatrex + COC + AMS	0.75 oz + 1.5 oz + 8 oz + 2 pt + 2.0 lb	0	97	94	81	0	100	100	100	0	100	100	100	99	98	100	214
Steadfast + Callisto + Aatrex + MSO + AMS	0.75 oz + 1.5 oz + 8 oz + 2 pt + 2.0 lb	0	99	94	81	0	100	100	100	0	100	100	100	100	100	100	221
Steadfast + Callisto + Aatrex + COC[1] + AMS	0.75 oz + 1.5 oz + 8 oz + 2 pt + 2.0 lb	0	97	95	84	0	100	100	100	0	100	100	100	100	100	100	220
Roundup Weathermax + E9636 + AMS	22 oz + 1 oz + 2.0 lb	0	97	93	83	0	100	100	100	0	100	100	100	96	98	98	220
Steadfast + Lumax + NIS + AMS	0.75 oz + 2 pt + 0.25% + 2.0 lb	0	93	91	81	0	100	100	100	0	100	100	100	98	99	100	216
Preemergence/POST I (2 to 4-inch weeds)																	
Cinch / Steadfast + Callisto + Aatrex + COC + AMS	1 pt / 0.75 oz + 1.5 oz + 8 oz + 2 pt + 2.0 lb	91	99	99	93	86	100	100	100	97	100	100	100	100	100	100	225
Harness / Roundup Weathermax + AMS	1.25 pt / 22 oz + 2.0 lb	95	98	93	84	93	100	100	100	98	100	100	100	88	94	95	217
Check																	
Weedy check		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	109
	LSD (0.10)	1.1	2.2	3.2	5.3	2.5	ns	ns	ns	0.6	ns	ns	ns	4.3	3.2	2.8	13.4

[a] COC = Prime Oil crop oil concentrate; COC[1] = Agri-dex crop oil concentrate; MSO = Destiny methylated seed oil; AMS = spray grade ammonium sulfate.
[b] Yield adjusted to 15.5% moisture.