

Annual weed control with Steadfast Q, Resolve Q, and Require Q in corn at Lamberton, MN in 2008.

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The objective of this study was to evaluate Steadfast Q, Resolve Q, and Require Q for annual grass and annual broadleaf weed control in corn. This study was conducted on a Normania loam soil containing 3.8% organic matter, pH 6.1 and soil test P and K levels of 64 and 296 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 2007 and was fall chiseled. The area was fertilized with 150 lbs of nitrogen applied as anhydrous ammonia. On May 15, 2008, Pioneer '37N16' glufosinate resistant/glyphosate resistant field corn was planted in 30-inch rows at a seeding rate of 33,000 seeds/A. 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 15	June 9
Treatment	PRE	POST
Temperature (F)		
air	63	55
soil (4 inch)	62	58
Relative humidity (%)	52	72
Wind (mph)	NW 5	SW 12
Sky	cloudy	clear
Soil moisture	dry	moist
Corn		
leaf no.	-	V3
height (inch)	-	5
Yellow foxtail		
leaf no.	-	2 to 4
height (inch)	-	2 to 4
no./ft ²	-	59
Common lambsquarters		
leaf no.	-	3 to 5
height (inch)	-	1 to 2
no./ft ²	-	1
Tall waterhemp		
leaf no.	-	3 to 5
height (inch)	-	1 to 2
no./ft ²	-	1
Rainfall after application (inch)		
1 week	0.10	1.05
2 week	0.50	0.00
3 week	0.58	0.61

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

Table. Annual weed control with Steadfast Q, Resolve Q, and Require Q in corn at Lamberton, MN in 2008 (Getting).

Treatment ^a	Rate	Yellow foxtail				Common lambsquarters				Tall waterhemp				Yield ^b (bu/A)
		Jun 4	Jun 20	Jul 11	Aug 19	Jun 4	Jun 20	Jul 11	Aug 19	Jun 4	Jun 20	Jul 11	Aug 19	
Preemergence/POST (2 to 4-inch weeds)	(oz/A, pt/A, lb/A or %)	-----(% control)-----												
Breakfree/ Steadfast Q + Impact + Atrazine + MSO + AMS	1 pt / 1.5 oz + 0.5 oz + 1 pt + 1% + 2 lb	78 a	98 a	91 b	91 b	80 a	98 a	98 a	98 a	93 b	98 a	97 ab	98 a	157 a
Breakfree/ Resolve Q + Atrazine + Roundup Powermax + AMS	1 pt / 1.25 oz + 1 pt + 22 oz + 2 lb	78 a	98 a	93 a	91 ab	74 b	98 a	98 a	98 a	94 ab	98 a	98 a	97 ab	160 a
Breakfree/ Require Q + Atrazine + Roundup Powermax + AMS	1 pt / 4 oz + 1 pt + 22 oz + 2 lb	80 a	98 a	93 a	94 a	79 ab	98 a	98 a	97 a	93 b	98 a	98 a	97 ab	159 a
Breakfree/ Roundup Powermax + AMS	1 pt / 22 oz + 2 lb	73 b	98 a	80 d	90 bc	75 ab	98 a	97 ab	97 a	95 a	98 a	93 b	94 bc	169 a
POST (2 to 4-inch weeds)														
Steadfast Q + Impact + Atrazine + MSO + AMS	1.5 oz + 0.5 oz + 1 pt + 1% + 2 lb	0 c	98 a	90 b	89 bc	0 c	98 a	98 a	97 a	0 c	98 a	98 a	98 a	163 a
Resolve Q + Atrazine + Roundup Powermax + AMS	1.25 oz + 1 pt + 22 oz + 2 lb	0 c	98 a	88 c	88 c	0 c	98 a	98 a	97 a	0 c	98 a	95 ab	93 c	166 a
Require Q + Atrazine + Roundup Powermax + AMS	4 oz + 1 pt + 22 oz + 2 lb	0 c	98 a	89 bc	88 c	0 c	98 a	98 a	97 a	0 c	98 a	93 b	95 a-c	155 a
Roundup Powermax + AMS	1 pt / 22 oz + 2 lb	0 c	98 a	80 d	81 d	0 c	98 a	97 b	92 b	0 c	98 a	73 c	74 d	170 a
Checks														
Weedy check	-	0 c	0 b	0 e	0 e	0 c	0 b	0 c	0 c	0 c	0 b	0 d	0 e	91 b
	LSD (0.10)	4.1	ns	2.0	2.7	5.6	ns	0.9	2.0	2.0	ns	4.4	3.5	18.0

^a MSO = methylated seed oil; AMS = spray grade ammonium sulfate.

^b Yield adjusted to 15.5% moisture.