

Weed control with Option and Equip in corn at Lamberton, MN in 2004. Getting, Jodie K., and Bruce D. Potter. The objective of this study was to evaluate Option and Equip tank mixed with Distinct, Callisto, and Northstar for annual grass and annual broadleaf weed control in corn. This study was conducted on a Storden Ves loam soil containing 7.9% organic matter, pH 7.6 and soil test P and K levels of 34 and 432 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 soybeans in 2003. The area was fertilized with 120 lb/A of nitrogen as anhydrous ammonia. On April 29, 2004, Dekalb '5018' 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	June 4
Treatment	POST
Temperature (F)	
air	66
soil (4 inch)	62
Relative humidity (%)	49
Wind (mph)	S 10
Sky	p. cloudy
Soil moisture	moist
Corn	
leaf no.	V3
height (inch)	6
Green foxtail	
leaf no.	1 to 3
height (inch)	1 to 3
no./ft ²	17
Common lambsquarters	
leaf no.	3 to 5
height (inch)	1 to 3
no./ft ²	6
Tall waterhemp	
leaf no.	1 to 2
height (inch)	0.25 to 1
no./ft ²	5
Common cocklebur	
leaf no.	1 to 3
height (inch)	1 to 3
no./ft ²	<1
Rainfall after application (inch)	
1 week	1.16
2 week	1.57
3 week	0.47

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

Table. Weed control with Option and Equip in corn at Lamberton, MN in 2004 (Getting and Potter).

Treatment ^a	Rate	Green foxtail			Common lambsquarters			Tall waterhemp			Common cocklebur			Yield (bu/A) ^b
		6/14	6/25	9/10	6/14	6/25	9/10	6/14	6/25	9/10	6/14	6/25	9/10	
-----(% control)-----														

Postemergence (1 to 3-inch weeds)	(oz/A or pt/A)													
Option + MSO + 28%N	1.5 oz + 1.5 pt + 3 pt	93	94	83	83	98	95	50	14	3	90	98	95	177
Equip + MSO + 28%N	1.5 oz + 1.5 pt + 3 pt	96	97	88	92	100	93	81	20	5	94	95	93	169
Option + Distinct + MSO + 28%N	1.5 oz + 2 oz + 1.5 pt + 3 pt	95	97	86	86	99	94	95	98	80	100	100	99	190
Equip + Distinct + MSO + 28%N	1.5 oz + 2 oz + 1.5 pt + 3 pt	96	97	83	93	100	95	97	99	90	100	100	100	205
Option + Callisto + MSO + 28%N	1.5 oz + 2 oz + 1.5 pt + 3 pt	96	93	80	98	100	97	97	100	92	93	98	98	195
Equip + Callisto + MSO + 28%N	1.5 oz + 2 oz + 1.5 pt + 3 pt	97	97	89	98	100	98	97	100	92	96	100	100	188
Option + Northstar + MSO + 28%N	1.5 oz + 3 oz + 1.5 pt + 3 pt	96	97	88	90	99	95	87	86	68	99	100	100	185
Equip + Northstar + MSO + 28%N	1.5 oz + 3 oz + 1.5 pt + 3 pt	96	98	93	92	100	96	94	89	77	100	100	100	192
Steadfast + Callisto + COC + AMS	0.75 oz + 2 oz + 2 pt + 3 pt	96	97	89	97	100	98	97	100	95	97	100	100	208
<u>Check</u>														
Weedy check		0	0	0	0	0	0	0	0	0	0	0	0	92
	LSD (0.10)	2.4	3.2	7.0	8.2	1.5	3.4	9.3	8.8	11.4	4.8	2.7	3.6	27.0

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

^b Yield adjusted to 15.5% moisture.