

Corn herbicide encapsulation at Lamberton, MN in 1998. Elizabeth A. Dyck and Jodie K. Getting.

The objective of this study was to evaluate the effects of herbicide encapsulation for annual grass and annual broadleaf control in corn. This study was conducted on a Ves loam soil containing 3.9% organic matter, pH 6.7 and soil test P and K levels of 84 and 454 lb/A, respectively. A randomized complete block design with four replications and a plot size of 10 by 30 ft was used. The test site was planted to soybeans in 1997. The site was fall chisel plowed. On May 1, 1998 Pioneer '3730' field corn was planted in 30-inch rows at a seeding rate of 30,000 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 27
Treatment	POST
Temperature (F)	
air	83
soil (4 inch)	76
Relative humidity (%)	34
Wind (mph)	S 8
Sky	clear
Soil moisture	dry
Corn	
leaf no.	V3
height (inch)	5
Green foxtail	
leaf no.	2 to 4
height (inch)	1 to 3
no./ft ²	37
Rainfall after application (inch)	
1 week	0.11
2 week	0.17
3 week	0.49

Corn herbicide encapsulation at Lamberton, MN in 1998 (Dyck and Getting)

Treatment	Rate	Grft			Grft biomass (g/2m ²)	Yield (bu/A) ^e
		6/15	6/26	9/10		
<u>POST (3 to 4-inch weeds)</u>		-(% control)-				
Accent + Clarity + 2,4-D amine + atrazine + NIS + 28%N	0.125 oz + 2 oz + 2 oz + 1.5 pt + 0.25% + 2.5%	94	90	86	196	163
Accent ^a + Clarity ^b + 2,4-D amine ^c + atrazine ^d + 28%N	0.125 oz + 2 oz + 2 oz + 1.5 pt + 2.5%	94	88	85	219	152
Accent Gold + Clarity + NIS + 28%N	2.9 oz + 4oz + 0.25% + 2.5%	98	93	91	83	162
Weedy Check		0	0	0	652	133
Hand-weeded check	-	100	100	97	-	171
	LSD (0.10)	2.3	4.1	6.1	115.9	12.5

^a Encapsulated with SoyCap (3 oz/a)

^b Encapsulated with SoyCap (3 oz/a)

^c Encapsulated with SoyCap (3 oz/a)

^d Encapsulated with SoyCap (25 oz/a)

^e Yield adjusted to 15.5% moisture.