

Soybean 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 soybeans. 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 'Parker' soybeans were planted in 30-inch rows at a seeding rate of 160,000 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	June 11
Treatment	POST
Temperature (F)	
air	64
soil (4 inch)	70
Relative humidity (%)	93
Wind (mph)	S 5
Sky	cloudy
Soil moisture	dry
Soybean	
leaf no.	V2
height (inch)	5
Green foxtail	
leaf no.	2 to 4
height (inch)	2 to 5
no./ft ²	67
Rainfall after application (inch)	
1 week	0.53
2 week	0.39
3 week	1.89

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Treatment	Rate (oz/A)	Injury		Grft			biomass (g/2m ²)	Yield (bu/A) ^d
		6/15	6/26	6/26	8/18	9/10		
<u>POST (3 to 4-inch weeds)</u>								
Poast Plus + Basagran + Reflex +COC + 28%N	8 oz +10 oz +6 oz +1 pt + 2 pt	11	10	88	74	70	774	14.8
Poast Plus ^a + Basagran ^b + Reflex ^c + 28%N	8 oz +10 oz +6 oz + 2 pt	11	10	80	71	70	864	14.3
Poast Plus + Galaxy + COC + 28%N	1.5 pt + 1 qt + 1 pt + 1 qt	28	21	97	85	83	367	24.6
Weedy Check		0	0	0	0	0	3110	2.2
Hand-weeded check	-	0	0	100	89	86	-	25.6
	LSD (0.10)	3.1	6.0	3.7	4.8	6.7	358.6	3.62

^a Encapsulated with SoyCap (10 oz/a)

^b Encapsulated with SoyCap (12 oz/a)

^c Encapsulated with SoyCap (8 oz/a)

^d Yield adjusted to 13% moisture.