Common pokeweed control in corn. Young, Bryan G. and Scott A. Nolte. This study was designed to evaluate the efficacy of postemergence broadleaf herbicides in corn on common pokeweed to develop control recommendations. The study was conducted at an off-station location in West Salem, IL. Field corn was planted 1.5 inch deep at 28 000 seed/A into a no-till seedbed on about June 1. Plots consisted of four rows with 30 inch row spacing, 40 ft long arranged in a randomized complete block design with 4 replications. The herbicides were broadcast applied with a CO_2 pressurized sprayer using 8003 flat fan tips at 30 PSI in 20 GPA water. Application timings were 6 to 8 inch corn (6-8"CN) and 20 to 24 inch corn (20-24"CN).

Application information is listed below.

Date	Jun-14-02	Jun-25-02
Treatment	6-8"CN	20-24"CN
Air temperature (F)	74	90
Relative humidity (%)	35	65
Soil moisture	normal	dry
field corn		
leaf no.	V3-V4	V5-V6
height (inch)	9-12	18-26
common pokeweed		
leaf no.	5-50+	2-50+
height (inch)	3-40	3-46

Common pokeweed control at 14 days after the 6 to 8 inch corn application was 64 to 65% with imazethapyr & imazapyr or mesotrione and 78 to 80% from treatments that included dicamba. However, when herbicide applications were delayed until corn was 20 to 24 inches in height, common pokeweed control 14 days after treatment was only 40 to 55% from treatments containing dicamba. Common pokeweed control 14 days after treatment was 65% from mesotrione regardless of application timing. By 56 days after the 20 to 24 inch application timing, common pokeweed control was at least 91% from all herbicide treatments applied when corn was 6 to 8 inches. Common pokeweed control 56 days after treatment was 71 to 80% from imazethapyr & imazapyr and treatments containing dicamba applied when corn was 20 to 24 inches and 94% from mesotrione. (Dept. of Plant, Soil and General Agriculture, Southern Illinois University, Carbondale).

Table. Common pokeweed control in corn. (Young and Nolte)

Treatment[a]	Application Rate	Application Time	Corn injury[b] 14 days after 6-8"CN	Corn injury[b] Days after 20-24"CN 14	28	56	Common pokeweed control 14 days after 6-8"CN	Common pokeweed control Days after 20-24"CN 14	28	56	End of season
	(lb/A)		%	%	%	%	%	%	%	%	%
Imazethapyr&imazapyr+NIS+28%N	0.042&0.014	6-8"CN	0	0	0	0	64	63	92	95	88
Imazethapyr&imazapyr+NIS+28%N	0.042&0.014	20-24"CN		0	0	0		49	64	79	84
Dicamba&San 1269H+NIS+28%N	0.125&0.05	6-8"CN	0	0	0	0	80	75	80	92	82
Dicamba&San 1269H+NIS+28%N	0.125&0.05	20-24"CN		0	0	0		54	75	80	79
Dicamba+NIS+28%N	0.25	6-8"CN	0	0	0	0	78	70	75	93	83
Dicamba+NIS+28%N	0.25	20-24"CN		0	0	0		40	71	71	83
Dicamba&San 1269H&nicosulfuron+NIS+28%N	0.128&0.05&0.029	6-8"CN	0	0	0	0	80	75	92	91	86
Dicamba&San 1269H&nicosulfuron+NIS+28%N	0.128&0.05&0.029	20-24"CN		0	0	0		55	84	79	75
Mesotrione+COC+28%N	0.094	6-8"CN	0	0	0	0	65	91	97	95	84
Mesotrione+COC+28%N	0.094	20-24"CN		0	0	0		65	90	94	89
Nontreated			0	0	0	0	0	0	0	0	0
LSD			0	0	0	0	11	8	6	8	10
P			1.0	1.0	1.0	1.0	0.01	0.01	0.01	0.01	0.01

[a]A blanket early preplant application of atrazine+simizine at 1.0+1.0 lb/A was applied to all plots.

All NIS at 0.25% v/v. NIS = Activator 90, a nonionic surfactant from Loveland Industries, Inc.

All 28%N at 2.5% v/v. 28%N = 28% urea ammonium nitrate.

All COC at 1.0% v/v. COC = Prime Oil crop oil concentrate, a petroleum based additive with 17% emulsifier from Agriliance.

[b]14 days after 6-8"CN application, 14, 28, and 56 days after 20-24"CN application was on Jun-28-02, Jul-9-02, Jul-23-02, and Aug-20-02, respectively.