

Star-of-Bethlehem control in no-till soybean. Young, Bryan G., John F. Fietsam, and Scott A. Nolte. This study was designed to determine the effectiveness of soybean herbicides for burndown control of star-of-Bethlehem. This study was conducted at an off-station location in Marion, IL. Herbicide applications preceded the crop and were applied 28 days before the planned planting date (28EPP). Weed control was rated 14 days after application and could not be rated at planting as planting was delayed and star-of-Bethlehem in the nontreated plots was dying naturally by that time. Plots were 10 ft wide, 30 ft long arranged in a randomized complete block design with 4 replications. The herbicides were broadcast applied with a CO₂ pressurized sprayer using 8003 flat fan tips at 40 PSI in 20 GPA water.

Application information is listed below.

Date	Apr-11-02
Treatment	28EPP
Air temperature (F)	75
Soil moisture	normal

star-of-Bethlehem	
leaf no.	5-6
height (inch)	6-8

chickweed, mouseear	
leaf no.	4-8
height (inch)	3-5

Paraquat, flumioxazin, sulfentrazone, and chlorimuron & sulfentrazone provided excellent control of star-of-Bethlehem by 28 days after treatment. Glyphosate alone controlled 73% of star-of-Bethlehem. Tank mixing thifensulfuron with glyphosate did not improve control. Thifensulfuron and thifensulfuron & tribenuron controlled 48 to 63% of star-of-Bethlehem. Chlorimuron, 2,4-D ester, and cloransulam controlled less than 45% of star-of-Bethlehem. (Dept. of Plant, Soil and General Agriculture, Southern Illinois University, Carbondale).

Table. Star-of-Bethlehem control in no-till soybean. (Young, Fietsam and Nolte)

Treatment ^a	Application		OTGUM control days after treatment ^b	
	Rate (lb/A)	Time	14 %	28 %
Nontreated			0	0
Glyphosate+AMS	0.75+2.0%	28EPP	33	73
2,4-De	0.5	28EPP	14	10
Paraquat+NIS	0.75+0.25%	28EPP	96	99
Thifensulfuron+NIS	0.0188+0.25%	28EPP	43	63
Thifensulfuron+NIS	0.028+0.25%	28EPP	35	50
Glyphosate+thifensulfuron+AMS	0.75+0.028+2.0%	28EPP	48	63
2,4-De+thifensulfuron+NIS	0.5+0.028+0.25%	28EPP	45	61
Paraquat+thifensulfuron+NIS	0.75+0.028+0.25%	28EPP	96	97
Thifensulfuron&tribenuron+NIS	0.0126&0.0062+0.25%	28EPP	35	48
Thifensulfuron&tribenuron+NIS	0.0188&0.0093+0.25%	28EPP	35	55
Chlorimuron+COC	0.039+1.0%	28EPP	15	18
Cloransulam+COC	0.032+1.0%	28EPP	28	44
Flumioxazin+COC	0.08+1.0%	28EPP	98	99
Sulfentrazone+COC	0.25+1.0%	28EPP	86	98
Chlorimuron&sulfentrazone+COC	0.04&0.2+1.0%	28EPP	92	97
Carfentrazone+COC	0.016+1.0%	28EPP	10	3
LSD			12	25
P			0.01	0.01

^aGlyphosate was Roundup UltraMax from Monsanto.

AMS = spray grade ammonium sulfate.

NIS = Activator 90, a nonionic surfactant from Loveland Industries, Inc.

COC = Prime Oil crop oil concentrate, a petroleum based additive with 17% emulsifier from Agrilience.

^bRatings at 14 and 28 days after treatment were on April 25 and March 9, respectively.