

Influence of application timing for star-of-Bethlehem control. Hagerman, Jennifer A., Bryan G. Young and Scott A. Nolte. This study was designed to evaluate the influence of herbicide application timing for burndown control of star-of-Bethlehem. This study was conducted near Marion, IL. Plots were 10 ft wide and 25 ft long arranged in a randomized complete block design with 3 replications. The herbicides were broadcast applied with a CO₂ pressurized sprayer using 8003 flat fan tips at 40 PSI and 20 GPA water. Applications were scheduled for March 1 (MARCH1), March 21 (MARCH21), and April 11 (APRIL11). Application information is listed below.

Date	3-2-04	3-21-04	4-14-04
Treatment	MARCH1	MARCH21	APRIL11
Air temperature (F)	53	43	58
Relative humidity (%)	52	34	34

star-of-Bethlehem

leaf no.	2-4	2-6	2-6
height (inch)	1-3	3-6	4-10

Glyphosate provided poor control (10% or less) of star-of-Bethlehem regardless of application timing. Control of star-of-Bethlehem at planting was less than 70% from herbicide treatments applied on March 1 or March 21. However applications of paraquat and flumioxazin on April 11 provided 99 and 91% control of star-of-Bethlehem at planting, respectively. (Dept. of Plant, Soil and Agricultural Systems, Southern Illinois University, Carbondale)

Table. Influence of application timing for star-of-Bethlehem control. (Hagerman, Young and Nolte)

Treatment ^a	Application		Star-of-Bethlehem control		
			Days after treatment		At planting
	Rate (lb/A)	Time	21 %	42 %	%
Nontreated			0	0	0
Paraquat + NIS	0.75 + 0.25%	MARCH1	47	30	12
Glyphosate	0.77	MARCH1	8	0	0
Flumioxazin + COC	0.08 + 1.0%	MARCH1	52	40	0
Para + flumioxazin + COC	0.75 + 0.08 + 1.0%	MARCH1	62	47	27
Glyt + flumioxazin	0.77 + 0.08	MARCH1	53	48	3
Para + NIS	0.75 + 0.25%	MARCH21	73	40	40
Glyt	0.77	MARCH21	10	3	3
Flumioxazin + COC	0.08 + 1.0%	MARCH21	73	57	57
Para + flumioxazin + COC	0.75 + 0.08 + 1.0%	MARCH21	83	67	67
Glyt + flumioxazin	0.77 + 0.08	MARCH21	78	67	67
Para + NIS	0.75 + 0.25%	APRIL11	99		99
Glyt	0.77	APRIL11	3		3
Flumioxazin + COC	0.08 + 1.0%	APRIL11	91		91
Para + flumioxazin + COC	0.75 + 0.08 + 1.0%	APRIL11	99		99
Glyt + flumioxazin	0.77 + 0.08	APRIL11	99		99
LSD			6	9	8
P			0.01	0.01	0.01

^aAll glyphosate was Roundup WeatherMax.

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

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