Spring treatments for dandelion control in soybean. Woodburn, IN, 2004. Dewell, Reece A., J. Earl Creech, William G. Johnson, and Vince Davis. A field study was conducted to evaluate various spring-applied herbicide combinations for dandelion control in soybean. The study was conducted in a cooperator's field near Woodburn, IN, about 5 to 10 miles ENE of Fort Wayne, IN, on a Hoytville-Nappanee silt loam/silty clay loam soil with 3% organic matter. Treatments were arranged in a randomized complete block with four replications. Individual plot dimensions were 10 by 30 feet. Beck's 323RR soybean was planted 1. 5 inches deep into a no-till seedbed on May 6 in 15-inch rows, at a population of 175,200 seeds/acre. Spring burndown (SPRBD) herbicide treatments were applied with a CO_2 backpack sprayer delivering 15 gpa and equipped with XR8002 flat fan nozzles. A late postemergence (LPOST) maintenance treatment of glyphosate(WMAX) at 0.77 lb ae/a was applied over the entire study area, including non-treated checks, using a 4-wheeler on June 4. Application date, weed growth stage, and weather data are listed below:

Date	Apr 20, 2004
Treatment	SPRBD
Temperature	
Air (F)	61
Soil (F)	54
Soil moisture	dry surface
Wind (mph)	5 to 10
Cloud cover (%)	100
Relative humidity (%)	55
Precipitation	
Prior week (inch)	0
Week 1 (inch)	0.29
Week 2 (inch)	1.11
Corn (inch)	na
Dandelion (rosettes)	3 to 12 inch
Dandelion (density)	9 to 36 / m^2

At the May 20 rating, all treatments containing flumioxazin + chlorimuron controlled dandelion greater than 90%. All other treatments provided 60% or better control except 2,4-D alone (48%). The July 1 rating (following the LPOST glyphosate application) generally revealed improved dandelion control for most treatments (71% or higher). However, the non-treated check had 63% control on July 1 from the LPOST glyphosate maintenance application alone. The non-treated check had a significantly higher late season dandelion rosette count than all SPRBD treatments. Flumioxazin + cloransulam + glyphosate(GF) + 2,4-D(EH) + COC + AMS resulted in the least number of dandelion rosettes on October 7, but statistically this treatment only differed from the 2,4-D(EH) + cloransulam + NIS + AMS treatment. (Dept. Botany and Plant Pathology, Purdue University, West Lafayette, IN).

Table. Spring treatments for dandelion control in soybean. Woodburn, IN, 2004. (Dewell, Johnson, Creech, and Davis).

Treatment[a]	Rate	Application[b]	TAROF 5/20[c]	TAROF 7/1[d]	TAROF 10/7[e]
	(lb/A)		%	%	# / 75 ft^2
Glyphosate(OMAX) + NIS + AMS	0.77+0.25%+2.5	SPRBD	73	75	36
2,4-D(EH) + NIS + AMS	0.5+0.25%+2.5	SPRBD	48	78	43
Glyphosate(OMAX) + chlorimuron + NIS + AMS	0.77+0.0078+0.25%+2.5	SPRBD	82	91	42
2,4-D(EH) + chlorimuron + NIS + AMS	0.5+0.0078+0.25%+2.5	SPRBD	69	92	21
Glyphosate(OMAX) + cloransulam + NIS + AMS	0.77+0.008+0.25%+2.5	SPRBD	75	80	29
2,4-D(EH) + cloransulam + NIS + AMS	0.5+0.008+0.25%+2.5	SPRBD	60	78	58
Flumioxazin + glyphosate(OMAX) + chlorimuron +NIS + AMS	0.063+0.77+0.0078 +0.25%+2.5	SPRBD	92	83	31
Flumioxazin + glyphosate(OMAX) + cloransulam +NIS + AMS	0.063+0.77+0.008 +0.25%+2.5	SPRBD	70	82	37
Flumioxazin + 2,4-D(EH) + chlorimuron +NIS + AMS	0.063+0.5+0.0078 +0.25%+2.5	SPRBD	93	90	15
Flumioxazin + 2,4-D(EH) + cloransulam +NIS + AMS	0.063+0.5+0.008 +0.25%+2.5	SPRBD	72	88	14
Flumioxazin + 2,4-D(EH) + chlorimuron + sulfentrazone +NIS + AMS	0.063+0.5+0.0059+0.0293 +0.25%+2.5	SPRBD	90	90	15
Flumioxazin + 2,4-D(EH) + NIS + AMS	0.063+0.5+0.25%+2.5	SPRBD	73	89	17
Flumioxazin + cloransulam + glyphosate(GF) +2,4-D(EH) + COC + AMS	0.048+0.0157+0.56 +0.5+1.0%+2.5	SPRBD	84	92	6
Flumetsulam + glyphosate(GF) +2,4-D(EH) + COC + AMS	0.04+0.56 +0.5+1.0%+2.5	SPRBD	75	92	28
Cloransulam + glyphosate(GF) +2,4-D(EH) + COC + AMS	0.0157+0.56 +0.5+1.0%+2.5	SPRBD	78	90	27
Glyphosate(TT) + fomesafen&adjuvant + AMS	0.0.78+0.117+2.5	SPRBD	66	71	53
Non-treated Check			--	63	113
LSD (0.05)			13	8	48

[a] Treatments: Glyphosate(OMAX) = Roundup Original Max from Monsanto; NIS = Preference nonionic surfactant from Agriliance, LLC. (90% NIS blend containing soybean based fatty acid and alcohol ethoxylates); AMS = S-Sul sprayable ammonium sulfate from Agriliance, LLC; 2,4-D(EH) = ethylhexyl ester; Glyphosate(GF) = GF-1279 from Dow Agrosciences; COC = Prime Oil crop oil concentrate from Agriliance, LLC. (83% paraffin base petroleum oil); Glyphosate(TT) = Touchdown Total from Syngenta.

[b] Late postemergence (LPOST) maintenance application was made on 06/04/2004 to the entire study area, including nontreated checks: glyphosate(WMAX) [Roundup Weathermax from Monsanto] (0.77 lb ae/a) + AMS (2.5 lb/A)

[c] Evaluation (May 20) is 30 DAT – SPRBD

[d] Evaluation (July 1) is 72 DAT – SPRBD and 27 DAT – LPOST (maintenance)

[e] Evaluation (October 7) is 170 DAT – SPRBD and 125 DAT – LPOST (maintenance)