

Glyphosate combinations for postemergence weed control in soybean. Urbana, Illinois, 2005.

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Date	June 6	June 13
Application	epost	post
Temperature (F)		
Air	84	89
Soil	76	78
Soil Moisture	dry	moist
Wind (mph)	3-W	10-SW
Sky Cover (%)	0	0
Precip. after application		
Week 1 (inch)	0.10	1.57
Week 2 (inch)	1.57	0.00
Relative humidity (%)	40	52
Soybean		
Leaf no.	1-trif	3-trif
Height (inch)	3	6
Giant foxtail		
Leaf no.	2	4
Height (inch)	2	5
Common lambsquarters		
Leaf no.	8	>9
Height (inch)	1	2
Common waterhemp		
Leaf no.	8	>9
Height (inch)	1	2
Velvetleaf		
Leaf no.	2	3
Height (inch)	1	3
Tall morningglory		
Leaf no.	2	7
Height (inch)	1	2

Visible soybean injury from pyraflufin, thifensulfuron, and chlorimuron containing treatments ranged up to 35% 7 days after treatment (DAT) but all recovered completely by 28 DAT. Imazamox and imazamox+pyraflufin provided the greatest level of giant foxtail control at both 14 and 28 DAT. Glyphosate and glyphosate tank-mixes, along with the clethodim+pyraflufin treatments provided fair to good control (70 to 90%) of giant foxtail 14 days after application, and continued to improve until the 28 DAT evaluation time. Control of common lambsquarters was greater than 88% with glyphosate or imazamox+pyraflufin 14 days after application, with all treatments showing greater than 85% control 28 DAT. Glyphosate tank-mixes provide the greatest level (higher than 90%) of common waterhemp control at both evaluation times. Imazamox applied alone and tank-mixed, along with the glyphosate tank-mixes provided excellent control (95% or greater) of velvetleaf at both evaluation times. All treatments, except glyphosate alone, provided greater than 80% control of tall morningglory 14 and 28 DAT. (Dept. of Crop Sciences, University of Illinois, Urbana).

Table 1. Glyphosate combinations for postemergence weed control in soybean. Urbana, Illinois, 2005. (Nordby, Simmons, and Lake).

Treatment	Appl Rate (lb/A)	Time	Glxma	Setfa	Cheal	Amata	Abuth	Phbpu
			6-20 % inj	6-20	6-20	6-20	6-20	6-20
Glyphosate <sup>1</sup>	0.75	post	0	98	53	73	63	65
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Clethodim <sup>4</sup> +Herbimax <sup>5</sup>	0.094+1.0%	epost	22	90	67	77	75	82
+pyraflufin <sup>6</sup>	0.0016	post						
+Activator 90+N-Pak AMS	0.5%+2.5%							
Clethodim <sup>4</sup> +Herbimax <sup>5</sup>	0.094+1.0%	epost	30	97	80	84	91	94
+pyraflufin	0.0033	post						
+Activator 90+N-Pak AMS	0.5%+2.5%							
Glyphosate <sup>1</sup> +pyraflufin	0.75+0.0008	post	17	99	89	95	98	94
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Glyphosate <sup>1</sup> +pyraflufin	0.75+0.0012	post	18	99	95	99	99	97
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Glyphosate <sup>1</sup> +pyraflufin	0.75+0.0016	post	27	99	99	99	99	98
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Glyphosate <sup>1</sup> +carfentrazone	0.75+0.008	post	18	99	92	97	99	97
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Glyphosate <sup>1</sup> +flumiclorac	0.75+0.0067	post	3	98	95	96	99	90
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Glyphosate <sup>1</sup> +thifensulfuron	0.75+0.002	post	8	99	95	92	94	89
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Glyphosate <sup>1</sup> +thifensulfuron	0.75+0.004	post	15	99	96	94	97	93
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Glyphosate <sup>1</sup> +thif+chlorimuron	0.75+0.004+0.004	post	22	99	97	97	98	92
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Glyphosate <sup>1</sup> +2,4-DB	0.75+0.031	post	3	99	88	95	92	87
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Check	-	-	0	0	0	0	0	0
Imazamox+pyraflufin	0.031+0.0008	post	32	99	96	99	99	98
+MSO <sup>7</sup> +N-Pak AMS <sup>3</sup>	1.0%+2.5%							
Imazamox+pyraflufin	0.031+0.0016	post	35	99	99	99	99	99
+MSO <sup>7</sup> +N-Pak AMS <sup>3</sup>	1.0%+2.5%							
Imazamox	0.031	post	8	98	82	58	94	83
+MSO <sup>7</sup> +N-Pak AMS <sup>3</sup>	1.0%+2.5%							
LSD (0.05)			8	2	9	7	7	7

<sup>1</sup> Roundup Original; <sup>2</sup> Activator 90 is a non-ionic surfactant blend from Loveland Products, Inc.; <sup>3</sup> N-PaK AMS is an ammonium sulfate solution from Agrilience LLC; <sup>4</sup> Select; <sup>5</sup> Herbimax is an oil, emulsifier, and surfactant blend from Loveland Products, Inc.; <sup>6</sup> ET-751; <sup>7</sup> MSO is a methylated seed oil and surfactant blend from Loveland Products, Inc.

Table 2. Glyphosate combinations for postemergence weed control in soybean. Urbana, Illinois, 2005. (Nordby, Simmons, and Lake).

Treatment	Appl Rate (lb/A)	Time	Glxma	Setfa	Cheal	Amata	Abuth	Phbpu
			7-11 % inj	7-11	7-11	7-11	7-11	7-11
Glyphosate <sup>1</sup>	0.75	post	0	84	85	95	83	72
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Clethodim <sup>4</sup> +Herbimax <sup>5</sup>	0.094+1.0%	epost	0	78	92	78	68	83
+pyraflufin <sup>6</sup>	0.0016	post						
+Activator 90+N-Pak AMS	0.5%+2.5%							
Clethodim <sup>4</sup> +Herbimax <sup>5</sup>	0.094+1.0%	epost	0	77	95	86	87	87
+pyraflufin	0.0033	post						
+Activator 90+N-Pak AMS	0.5%+2.5%							
Glyphosate <sup>1</sup> +pyraflufin	0.75+0.0008	post	0	87	98	98	97	89
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Glyphosate <sup>1</sup> +pyraflufin	0.75+0.0012	post	0	85	99	99	97	93
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Glyphosate <sup>1</sup> +pyraflufin	0.75+0.0016	post	0	88	99	99	98	93
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Glyphosate <sup>1</sup> +carfentrazone	0.75+0.008	post	0	87	88	97	97	88
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Glyphosate <sup>1</sup> +flumiclorac	0.75+0.0067	post	0	85	99	99	99	91
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Glyphosate <sup>1</sup> +thifensulfuron	0.75+0.002	post	0	87	97	98	97	93
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Glyphosate <sup>1</sup> +thifensulfuron	0.75+0.004	post	0	88	96	96	96	90
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Glyphosate <sup>1</sup> +thif+chlorimuron	0.75+0.004+0.004	post	0	86	99	98	99	93
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Glyphosate <sup>1</sup> +2,4-DB	0.75+0.031	post	0	87	98	99	97	92
+Activator 90 <sup>2</sup> +N-Pak AMS <sup>3</sup>	0.5%+2.5%							
Check	-	-	0	0	0	0	0	0
Imazamox+pyraflufin	0.031+0.0008	post	0	95	98	87	99	96
+MSO <sup>7</sup> +N-Pak AMS <sup>3</sup>	1.0%+2.5%							
Imazamox+pyraflufin	0.031+0.0016	post	0	95	99	94	99	98
+MSO <sup>7</sup> +N-Pak AMS <sup>3</sup>	1.0%+2.5%							
Imazamox	0.031	post	0	97	96	83	99	96
+MSO <sup>7</sup> +N-Pak AMS <sup>3</sup>	1.0%+2.5%							
LSD (0.05)			0	4	4	7	4	5

<sup>1</sup> Roundup Original; <sup>2</sup> Activator 90 is a non-ionic surfactant blend from Loveland Products, Inc.; <sup>3</sup> N-PaK AMS is an ammonium sulfate solution from Agrilience LLC; <sup>4</sup> Select; <sup>5</sup> Herbimax is an oil, emulsifier, and surfactant blend from Loveland Products, Inc.; <sup>6</sup> ET-751; <sup>7</sup> MSO is a methylated seed oil and surfactant blend from Loveland Products, Inc.