

Mesotrione, dicamba, and San 1269H tank-mixes for weed control in corn. Urbana, Illinois, 2002. Hager, Aaron G., Douglas J. Maxwell, Christy L. Sprague, and Loyd M. Wax. The objective of this research was to evaluate mesotrione and dicamba plus San 1269H tank-mixes for weed control in corn. The study was established at the University of Illinois Crop Sciences Research and Education Center, Urbana. The soil was a Drummer silty-clay loam with a pH of 6.1 and 5.5% organic matter. Garst 8600 corn was planted 2 inches deep on May 22 in 30 inch rows. Treatments were arranged in randomized complete blocks with three replications of plots 7.5 by 30 feet. Herbicides were applied with a CO<sub>2</sub> backpack sprayer delivering 20 gpa and equipped with 8003 flat fan nozzles. A blanket application of 0.031 lb/A nicosulfuron with 1.0% Herbimax and 2.5% 28%N was applied postemergence June 17 for grass weed control. Application information is listed below:

Date	June 17	June 24
Application	epost	lpost
Temperature (F)		
Air	81	90
Soil	72	87
Soil Moisture	Moist	Moist
Wind (mph)	5W	4SW
Sky Cover (%)	50	50
Precip. after application		
Week 1 (inch)	0.00	0.01
Week 2 (inch)	0.01	0.02
Relative humidity (%)	50	45
Corn		
Leaf no.	5	8
Height (inch)	12	20
Common Waterhemp		
Leaf no.	8	>8
Height (inch)	4	8
Common Lambsquarters		
Leaf no.	>8	>8
Height (inch)	3	5
Velvetleaf		
Leaf no.	4	5
Height (inch)	4	6
Tall Morningglory		
Leaf no.	4	5
Height (inch)	2	3

There was no crop injury observed from any of the treatments. Mesotrione alone provided excellent control of velvetleaf regardless of application timing while common lambsquarters control generally improved over time. The early postemergence application of mesotrione alone resulted in better common lambsquarters control later in the season compared with the late postemergence application. Tank-mixing dicamba and San 1269H with mesotrione generally improved control of common waterhemp and greatly improved control of tall morningglory compared with mesotrione alone. The addition of 0.029 lb/A dicamba and 0.011 lb/A San 1269H to mesotrione improved control of tall morningglory 8 to 76 percent compared with control obtained with mesotrione alone. (Dept. of Crop Sciences, University of Illinois, and Invasive Weed Mgt. Res., USDA, Agric. Res. Serv., Urbana).

Table. Mesotrione, dicamba, and San 1269H tank-mixes for weed control in corn. Urbana, Illinois, 2002. (Hager, Maxwell, Sprague, and Wax).

Treatment	Appl Rate	Time	Zeamd 10DAT	Amata 10DAT	Cheal 10DAT	Abuth 10DAT	Phbpu 10DAT	Zeamd 30DAT	Amata 30DAT	Cheal 30DAT	Abuth 30DAT	Phbpu 30DAT
	(lb/A)		% inj	% control				% inj	% control			
Mesotrione	0.094	epost	0	62	72	95	25	0	67	98	99	22
+Herbimax+28%N	1.0%+2.5%											
Meso+dicamba&San 1269H	0.094+0.029+0.011	epost	0	77	75	93	33	0	67	99	99	98
+Herbimax+28%N	1.0%+2.5%											
Meso+dicamba&San 1269H	0.094+0.057+0.023	epost	0	87	88	95	68	0	78	99	99	96
+Herbimax+28%N	1.0%+2.5%											
Meso+dicamba&San 1269H	0.094+0.093+0.037	epost	0	88	88	96	92	0	92	99	99	96
+Herbimax+28%N	1.0%+2.5%											
Meso+dicamba&San 1269H	0.094+0.125+0.05	epost	0	95	93	98	92	0	92	99	99	99
+Herbimax+28%N	1.0%+2.5%											
Meso+dicamba&San 1269H	0.047+0.029+0.011	epost	0	96	95	99	90	0	92	99	99	99
+Herbimax+28%N	1.0%+2.5%											
Check	-	-	0	0	0	0	0	0	0	0	0	0
Mesotrione	0.094	lpost	0	48	62	92	28	0	48	83	99	33
+Herbimax+28%N	1.0%+2.5%											
Meso+dicamba&San 1269H	0.094+0.029+0.011	lpost	0	82	90	95	62	0	78	93	99	62
+Herbimax+28%N	1.0%+2.5%											
Meso+dicamba&San 1269H	0.094+0.057+0.023	lpost	0	83	88	96	67	0	85	95	99	78
+Herbimax+28%N	1.0%+2.5%											
Meso+dicamba&San 1269H	0.094+0.093+0.037	lpost	0	92	95	98	82	0	88	93	99	93
+Herbimax+28%N	1.0%+2.5%											
Meso+dicamba&San 1269H	0.094+0.125+0.05	lpost	0	93	95	99	87	0	88	96	99	95
+Herbimax+28%N	1.0%+2.5%											
LSD (0.05)			0	4	6	4	6	0	6	4	0	4