

Evaluation of the performance of clethodim formulations for woolly cupgrass control in soybean at Rochester, MN in 2004. Breitenbach, Fritz R., Lisa M. Behnken, Kevin R. Griffin, and Kira L. Stearns. The objective of this trial was to evaluate the performance of V-10137 (clethodim) for woolly cupgrass control in soybean in southeastern Minnesota. The research site was a Lawler loam series containing 3.9% organic matter with a pH of 6.3 and soil test P and K levels of 52 ppm and 198 ppm, respectively. The previous crop was corn. The field was chisel plowed in the fall, and spring disked. The area was fertilized with Ag-lime in the spring at a rate of 3 T/A and field cultivated once prior to planting. The soybean variety, NK S15-B1, was planted on June 7, 2004 at a depth of 1.5 inches in 30-inch rows at 150,000 seeds/A. A randomized complete block design with four replications was used. Preemergence (PRE) and postemergence (POST) treatments were applied with a tractor-mounted sprayer, delivering 20 gpa at 32 psi using Turbo Tee 11002 nozzles. Evaluations of the plots were taken on July 30, August 6, and August 13. Application dates, environmental conditions, and crop and weed stages are listed below.

Date	June 8	July 20
Treatment	PRE	POST
Temperature (F)		
air	78	82
Relative humidity (%)	69	71
Wind (mph)	14	6
Soybean		
stage	seeded	R2
height (inches)	0	15
Woolly cupgrass		
weed density	--	moderate
height (inch)	--	13
Rainfall after application (inch)		
week 1	5.65	0.75
week 2	1.92	1.11
week 3	0.57	0.20

Clethodim in the form of V-10137 provided similar woolly cupgrass control to clethodim in the Select 2EC formulation when tank mixed with NIS and AMS. Clethodim, V-10137, tank mixed with crop oil concentrate and AMS offered faster burn-down and better control of woolly cupgrass than clethodim in the form of V-10137, tank mixed with NIS and AMS, and clethodim, Select 2EC, tank mixed with NIS and AMS as shown in the July 30 ratings. Clethodim in the form of V-10137, tank mixed with crop oil concentrate and AMS offered better weed control compared to when tank mixed with NIS and AMS on the August 6 rating date. No differences were observed among the clethodim treatments on the August 13 rating date. (University of Minnesota Extension Service, Regional Center, Rochester, MN)

Table. Performance of clethodim formulations for woolly cupgrass control in soybean on July 30, August 6, and August 13 at Rochester, MN in 2004. (Breitenbach, Behnken, Griffin and Stearns).

Treatment	Rate	Injury			ERBVI control		
		7/30	8/6	8/13	7/30	8/6	8/13
	(lb/A)	(%)			(%)		
Preemergence							
Cloransulam	0.016	0	0	0	0	0	0
Preemergence / Postemergence I							
Cloransulam / clethodim ¹ + NIS + AMS	0.016 / 0.125 + 0.25% + 2.5	0	0	0	68	89	90
Cloransulam / clethodim ¹ + COC + AMS	0.016 / 0.125 + 1% + 1.5	0	0	0	73	93	92
Cloransulam / clethodim ² + NIS + AMS	0.016 / 0.125 + 0.25% + 2.5	0	0	0	67	92	88
LSD (0.10)		0	0	0	4	3	5

Clethodim¹ = V10137, Clethodim² = Select, NIS = AGRI-DEX nonionic surfactant, Helena; AMS = spray grade ammonium sulfate, Helena; and COC = crop oil concentrate, Helena.