

Evaluation of pyraflufen in soybeans. Horky, Kevin T. and Alex R. Martin. A field study was conducted to evaluate the efficacy of pyraflufen in soybeans. A randomized complete block design with three replications per treatment was utilized. The study was conducted on a Sharpsburg silty clay loam with 3.1% organic matter and a pH of 6.6. Individual plots consisted of six 30-inch rows 30 feet long. 'Asgrow 2703' soybeans were planted May 9 at a population of 135,000 seeds per acre. Treatments were applied with a tractor-mounted sprayer traveling 3.0 mph. Clethodim was applied to all plots 30 days after planting, LPOST treatments were applied 44 days after planting. Application, crop, weed, and environmental data are presented below.

Date	June 22
Treatment	LPOST
Sprayer	
gpa	15
psi	30
Temperature (°C)	
air	29
soil (4 inch)	22
Soil Moisture	adequate
Wind (mph)	5
Sky (% cloudy)	0
Relative	
humidity (%)	57
Precip. After appl. (inches)	
week 1	1.55
week 2	0.06
Soybean	
No. trifoliate leaves	3
height (cm)	25
Velvetleaf	
height (cm)	30
infestation (m ²)	8
Common sunflower	
height (cm)	35
infestation (m ²)	5
Palmer Amaranth	
height (cm)	25
infestation (m ²)	5

Summary comments: Pyraflufen LPOST provided greater control of velvetleaf than other weed species. Initial soybean injury from pyraflufen decreased with time. Results of the study are summarized in the following table. (Dept. of Agronomy and Horticulture, University of Nebraska-Lincoln)

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Application			-----ABUTH-----		-----HELAN-----		-----AMAPA-----		-----GLXMA-----	
Treatment	Rate	Timing	7/7	7/20	7/7	7/20	7/7	7/20	Injury	
	(lb/a)		-----% Weed Control-----						---% Necrosis---	
Glyphosate+	0.75	LPOST	93	95	99	99	96	99	0	0
NIS ¹ +	0.25% v/v									
AMS ²	2.55									
Pyraflufen+	0.0016	LPOST	27	20	28	0	35	20	30	7
NIS+	0.25% v/v									
AMS	2.55									
Pyraflufen+	0.0031	LPOST	58	72	28	30	27	23	27	7
NIS+	0.25% v/v									
AMS	2.55									
Glyphosate+	0.75	LPOST	88	93	98	99	92	95	12	0
pyraflufen+	0.0008									
NIS+	0.25% v/v									
AMS	2.55									
Glyphosate+	0.75	LPOST	93	93	98	99	99	95	20	5
pyraflufen+	0.0012									
NIS+	0.25% v/v									
AMS	2.55									
Glyphosate+	0.75	LPOST	95	93	98	99	98	98	27	5
pyraflufen+	0.0016									
NIS+	0.25% v/v									
AMS	2.55									
LSD (P=.05)			8	9	7	24	7	4	16	4

¹NIS = 'Preference' by Agrilience²AMS = 'N-PAK' by Agrilience