

Fall Broadleaf Herbicide Trial
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Background/Objective: Evaluate various fall-applied phenoxy combinations for efficacy on broadleaf weeds and tolerance of Kentucky bluegrass.

Site Information

Location:	William H. Daniel Research and Diagnostic Center
Turfgrass Species:	Kentucky bluegrass blend
Turf Condition:	fair
Turf Management:	Mowing Height in: 2.5
	Fertilization: 1 lb N/M/YR
	Irrigation: To prevent moisture stress
Target Pest:	Dandelion (<i>Taraxacum officinale</i>) White clover (<i>Trifolium repens</i>)
Growth Stage:	mature

Application Information

Application Date: in 2005	27 Sept.
Spray Volume gal 1000 ft²:	2
Spray Equipment:	CO ₂ backpack and hand shaker bottle
Experimental Design:	Randomized complete block
Replications:	3
Plot Size ft:	5 X 5

Report:

- None of the herbicides caused noticeable phytotoxicity to the bluegrass at any time during the study.
- All of the products provided excellent control of dandelion and the control from all products was statistically equivalent (Table 1)
- All of the products provided excellent control of clover and even though there were some numerical differences in control, the performance of all products was statistically equivalent throughout the study (Table 2). The clover rating on 21 Nov. was affected by a killing frost causing leaves to wilt and an artificially low cover.

Table 1. Percent control^a of dandelion treated from various herbicides applied 27 Sept.

Treatment	Rate of application	14 Oct	27 Oct	14 Nov	21 Nov
	fl oz prod/M				
NUP 05044	1.2	91.9b ^c	99.0b	98.9b	100.0b
NUP 05045	1.1	100.0b	100.0b	98.9b	100.0b
NUP 05046	1.8	88.6b	90.5b	94.4b	99.0b
NUP 05047	1.56	84.9b	95.7b	98.9b	95.3b
NUP 2C 05	1.1	92.4b	92.4b	96.7b	100.0b
NUP 3T04	1.1	69.4b	89.2b	94.4b	92.4b
NUP 05011	1.1	87.9b	94.4b	98.9b	100.0b
NUP 05057	3.6 ^b	80.2b	86.3b	86.7b	90.5b
NUP 12H 02	3.2 ^b	97.9b	98.9b	94.4b	100.0b
Check		0.0a	0.0a	0.0a	0.0a

^a Percent control was calculated as (%cover check - %cover treatment)/ %cover check * 100.

^b Rate of application was pounds product/1000 sq. ft.

^c Means within a column followed by the same letter are not significantly different at P=0.05.

Table 2. Percent control^a of clover from various herbicides applied 27 Sept.

Treatment	Rate of application	14 Oct	27 Oct	14 Nov	21 Nov
	fl oz prod/M				
NUP 05044	1.2	77.8b ^c	91.1bc	86.7b	33.3
NUP 05045	1.1	100.0b	100.0c	100.0b	33.3
NUP 05046	1.8	100.0b	93.3bc	100.0b	33.3
NUP 05047	1.56	90.0b	68.9bc	75.6b	33.3
NUP 2C 05	1.1	76.7b	93.3bc	100.0b	33.3
NUP 3T04	1.1	93.3b	93.3bc	100.0b	33.3
NUP 05011	1.1	91.1b	92.2bc	100.0b	33.3
NUP 05057	3.6 ^b	86.7b	58.9b	80.0b	33.3
NUP 12H 02	3.2 ^b	76.7b	82.2bc	100.0b	33.3
Check		0.0a	0.0a	0.0a	0.0

^a Percent control was calculated as (%cover check - %cover treatment)/ %cover check * 100.

^b Rate of application was pounds product/1000 sq. ft.

^c Means within a column followed by the same letter are not significantly different at P=0.05.

Table 3. Percent cover^a dandelion after treatment with various herbicides applied 27 Sept.

Treatment	Rate of application	14 Oct	27 Oct	14 Nov	21 Nov
	fl oz prod/M				
NUP 05044	1.2	2.0	0.3	0.3	0.0
NUP 05045	1.1	0.0	0.0	0.3	0.0
NUP 05046	1.8	3.0	1.7	1.0	0.3
NUP 05047	1.56	3.3	0.7	0.3	0.7
NUP 2C 05	1.1	1.0	1.0	0.3	0.0
NUP 3T04	1.1	6.0	2.7	1.0	1.0
NUP 05011	1.1	1.7	1.0	0.3	0.0
NUP 05057	3.6 ^b	6.0	3.0	2.7	1.7
NUP 12H 02	3.2 ^b	0.7	0.3	1.0	0.0
Check		25.0	25.0	23.3	23.3
LSD (0.05)		8.4	7.4	6.4	6.9

^a Percent of the plot area covered by dandelion.

^b Rate of application was pounds product/1000 sq.ft.

Table 4. Percent cover^a clover after treatment with various herbicides applied 27 Sept.

Treatment	Rate of application	14 Oct	27 Oct	14 Nov	21 Nov
	fl oz prod/M				
NUP 05044	1.2	1.3	1.0	0.7	0.0
NUP 05045	1.1	0.0	0.0	0.0	0.0
NUP 05046	1.8	0.0	0.7	0.0	0.0
NUP 05047	1.56	0.7	2.7	2.0	0.3
NUP 2C 05	1.1	1.3	0.7	0.0	0.0
NUP 3T04	1.1	0.3	0.3	0.0	0.0
NUP 05011	1.1	0.7	1.0	0.0	0.0
NUP 05057	3.6 ^b	0.7	3.3	1.3	0.0
NUP 12H 02	3.2 ^b	2.3	1.3	0.0	0.0
Check		10.0	10.0	10.0	1.7
LSD (0.05)		3.3	3.1	3.0	NS

^a Percent of the plot area covered by clover.

^b Rate of application was pounds product/1000 sq.ft.