

Treatments may include both registered and currently unregistered applications.
Always check a current label prior to making any pesticide application.

Transplanted Leek Herbicide Efficacy 2019 - Mineral Soil

Jed B. Colquhoun / Daniel J. Heider / Richard A. Rittmeyer
University of Wisconsin Horticulture Department

Location: Arlington Agricultural Research Station, field 623

Plot Information:

Soil Type: Plano Silt Loam, 9% sand - 62% silt - 28 % clay, OM 3.4%, pH 6.4

Variety: 'Lancelot'

Date Planted: 5-5-2019 Emergence: N/A

Row Spacing: 6' wide plot with 2 rows spaced 24" apart centered in plot

Plant Spacing: 6" in row

Date Harvested: 8-12-2019

Plot Size-Design: 6' x 15', 3 reps

Rating Dates: 5-13, 5-23, 6-3, 6-10, 7-12

Phytotoxicity (PHYGEN) Rating Scale: 0% = no crop injury, 100% = dead crop plants

Phytotoxicity (PHYSTU) Rating Scale: % stunting relative to Handweeded Check

Weed Control Rating Scale: 0% = no control, 100% = complete control

Application Equipment: Backpack CO2 pressure sprayer. GPA 20, PSI 27, MPH 3.3,

Nozzle - XR8003VS, Nozzle spacing 18", Height 18".

Herbicide Application Data:

Date	5-4-19	6-3-19	7-1-19
Time	12:15 pm	3:30 PM	6:00 PM
Treatment	POSTRA	POSTRA+25d	POSTRA+50d
Application Timing	A	B	C
Soil Moisture			
SF	moist	dry	moist
1"	moist	moist	moist
3"	moist	moist	moist
Soil Temp (F°)			
SF	73.7	78.3	92.4
3"	55.5	71	83.6
Air Temp (F°)	69.6	73.9	87.2
Wind (mph/dir.)	3.7 SW	2.4 W	1.5 SW
%RH	60.4%	35.4%	60.2%
Sky Condition (% clouds)	5%	75%	25%
Crop Stage	TRANSPL	4 LF	6-8 LF
Weed & Size	-----	-----	-----

Summary: Rainfall was well above average during the first month following transplant, and temperatures were below normal, creating ideal conditions for crop injury response. Injury ratings were taken on all rating dates with no injury noted in any of the treatments. Weed control and yield were excellent in all treatments. Zidua appears to have an excellent fit in transplanted leek production on mineral soils.

Notes: VELE handweeded from entire trial prior to application on 7-1-19.

Weed Abbreviations

COLQ = Common Lambsquarter HANS = Hairy Nightshade
RRPW = Redroot Pigweed VELE = Velvetleaf

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Trt No.	Treatment Name	Rate	Appl Unit	Timing	% Weed Control 6-3-2019			
					COLQ	RRPW	VELE	HANS
1	Handweeded Check				100 -	100 -	100 a	100 -
2	Zidua	2.5 oz/a		POSTTRA	100 -	100 -	100 a	100 -
	Outlook	18 oz/a		POSTTRA+25d				
	Dual Magnum	1 pt/a		POSTTRA+50d				
3	Zidua	3.75 oz/a		POSTTRA	100 -	100 -	100 a	100 -
	Outlook	18 oz/a		POSTTRA+25d				
	Dual Magnum	1 pt/a		POSTTRA+50d				
4	Zidua	5 oz/a		POSTTRA	100 -	100 -	100 a	100 -
	Outlook	18 oz/a		POSTTRA+25d				
	Dual Magnum	1 pt/a		POSTTRA+50d				
5	Prowl H2O	2 pt/a		POSTTRA	100 -	99.3	98.5 b	100 -
	Zidua	2.5 oz/a		POSTTRA+25d				
	Dual Magnum	1 pt/a		POSTTRA+50d				
6	Prowl H2O	2 pt/a		POSTTRA	100 -	100 -	99.8 ab	100 -
	Zidua	3.75 oz/a		POSTTRA+25d				
	Dual Magnum	1 pt/a		POSTTRA+50d				
7	Prowl H2O	2 pt/a		POSTTRA	100 -	100 -	99.1 b	100 -
	Zidua	5 oz/a		POSTTRA+25d				
	Dual Magnum	1 pt/a		POSTTRA+50d				
8	Prowl H2O	2 pt/a		POSTTRA	100 -	100 -	99.1 b	100 -
	Outlook	18 oz/a		POSTTRA+25d				
	Dual Magnum	1 pt/a		POSTTRA+50d				

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

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8/12/2019

Trt No.	Treatment Name	Rate	Appl Unit	Timing	% Weed Control 6-10-2019				Yield
					COLQ	RRPW	VELE	HANS	tons/A
1	Handweeded Check				100 -	100 -	100 -	100 -	6.175 -
2	Zidua	2.5 oz/a		POSTTRA	100 -	100 -	100 -	100 -	6.8284 -
	Outlook	18 oz/a		POSTTRA+25d					
	Dual Magnum	1 pt/a		POSTTRA+50d					
3	Zidua	3.75 oz/a		POSTTRA	100 -	100 -	100 -	100 -	6.1686 -
	Outlook	18 oz/a		POSTTRA+25d					
	Dual Magnum	1 pt/a		POSTTRA+50d					
4	Zidua	5 oz/a		POSTTRA	100 -	100 -	100 -	100 -	6.7639 -
	Outlook	18 oz/a		POSTTRA+25d					
	Dual Magnum	1 pt/a		POSTTRA+50d					
5	Prowl H2O	2 pt/a		POSTTRA	100 -	100 -	99.3 -	100 -	6.8123 -
	Zidua	2.5 oz/a		POSTTRA+25d					
	Dual Magnum	1 pt/a		POSTTRA+50d					
6	Prowl H2O	2 pt/a		POSTTRA	100 -	100 -	100 -	100 -	7.0559 -
	Zidua	3.75 oz/a		POSTTRA+25d					
	Dual Magnum	1 pt/a		POSTTRA+50d					
7	Prowl H2O	2 pt/a		POSTTRA	100 -	100 -	100 -	100 -	6.5001 -
	Zidua	5 oz/a		POSTTRA+25d					
	Dual Magnum	1 pt/a		POSTTRA+50d					
8	Prowl H2O	2 pt/a		POSTTRA	100 -	100 -	99.3 -	100 -	6.1654 -
	Outlook	18 oz/a		POSTTRA+25d					
	Dual Magnum	1 pt/a		POSTTRA+50d					

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