

Herbicide Response Screen of POST Applications - Non-Crop.

Trial ID: 15-COL-POSTscreen-70 Location: Collinsville, IL Trial Year: 2015
Investigator: Ronald F. Krausz

Trial Status: F one-year/final
Initiation Date: 6-12-15
Completion Date: 8-7-15

Trial Location

City: Collinsville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62234

Objectives:

Evaluate the efficacy of ALS, triazine, HPPD, and growth regulator herbicides on Palmer amaranth control.

Contacts

Study Director: Ronald F. Krausz **Title:** Researcher/Farm Manager
Organization: Belleville Research Center - Southern Illinois Univ Carbondale
Address: 2036 Charles Lane **Phone No.:** 618-566-4761
City+State/Prov: Belleville, IL
Postal Code: 62221 **E-mail:** rkrausz@siu.edu
Country: USA

Crop Description

Crop 1: NONE - Non-crop
Variety: NON-CROP

Pest Description

Pest 1 Type: W **Code:** AMAPA **Amaranthus palmeri** S.Wats.
Common Name: amaranth, Palmer
Description: glyphosate-resistant Palmer amaranth

Site and Design

Treated Plot Width: 6.67 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 25 FT **Total Plot Length:** 25 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 3 **Study Design:** RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	NON-CROP	2014

Maintenance

No.	Maintenance Product Name
1.	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

Description Name: Collinsville IL 2014
% Sand: 14 **% OM:** 2.8 **Texture:** SIL silt loam
% Silt: 70 **pH:** 7.07 **Soil Name:** Littleton/Haymond/Orion
% Clay: 16 **CEC:** 11.2

Additional Measured Elements

Element	Quantity	Unit
P1	63	lb/A
K	346	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: ABONOR
Closest Weather Station: www.climate.com **Distance, Unit:** 1 MI

Herbicide Response Screen of POST Applications - Non-Crop.

Trial ID: 15-COL-POSTscreen-70 Location: Collinsville, IL Trial Year: 2015
 Investigator: Ronald F. Krausz

No.	Date	Amount	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	6-3-15					7	DAY	53	89	F
2.	6-4-15	0.29	IN	RAIN	rain	2	DAY			
3.	6-8-15	2	IN	RAIN	rain	1	DAY			
4.	6-10-15					7	DAY	64	91	F
5.	6-14-15	0.59	IN	RAIN	rain	1	DAY			
6.	6-15-15	0.15	IN	RAIN	rain	1	DAY			
7.	6-16-15	1.4	IN	RAIN	rain	1	DAY			
8.	6-17-15					7	DAY	69	91	F
9.	6-17-15	0.14	IN	RAIN	rain	1	DAY			
10.	6-18-15	1.17	IN	RAIN	rain	1	DAY			
11.	6-19-15	2	IN	RAIN	rain	1	DAY			
12.	6-20-15	0.25	IN	RAIN	rain	2	DAY			
13.	6-24-15					7	DAY	62	93	F
14.	6-25-15	2.19	IN	RAIN	rain	2	DAY			
15.	6-28-15	0.25	IN	RAIN	rain	1	DAY			
16.	7-1-15					7	DAY	63	88	F
17.	7-1-15	0.22	IN	RAIN	rain	1	DAY			
18.	7-6-15	1.96	IN	RAIN	rain	3	DAY			
19.	7-8-15					7	DAY	59	97	F
20.	7-9-15	0.58	IN	RAIN	rain	1	DAY			
21.	7-15-15					7	DAY	69	93	F
22.	7-17-15	0.06	IN	RAIN	rain	1	DAY			
23.	7-19-15	0.64	IN	RAIN	rain	2	DAY			
24.	7-22-15					7	DAY	65	95	F
25.	7-25-15	0.71	IN	RAIN	rain	2	DAY			
26.	7-29-15					7	DAY	65	93	F
27.	8-5-15	2.58	IN	RAIN	rain	1	DAY			

Application Description

	A
Application Date:	6-12-15
Appl. Start Time:	9:15
Appl. Stop Time:	9:35
Application Method:	Spray
Application Timing:	3-4"W
Application Placement:	BROFOL
Applied By:	MEJ
Air Temperature, Unit:	81 F
% Relative Humidity:	65
Wind Velocity, Unit:	7 MPH
Wind Direction:	W
Dew Presence (Y/N):	N
Soil Temperature, Unit:	75 F
Soil Moisture:	N
% Cloud Cover:	75
Next Moisture Occurred On:	6-14-15
Time to Next Moisture, Unit:	2 DAY

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	NONE
Stage Scale Used:	DESC
Stage Majority, Percent:	NA

Herbicide Response Screen of POST Applications - Non-Crop.

Trial ID: 15-COL-POSTscreen-70 Location: Collinsville, IL Trial Year: 2015
Investigator: Ronald F. Krausz**Pest Stage At Each Application**

	A
Pest 1 Code, Type, Scale:	AMAPA W
Stage Majority, Percent:	10
Stage Minimum, Percent:	6
Stage Maximum, Percent:	18
Height, Unit:	3 IN
Height Minimum, Maximum:	3 4
Density, Unit:	3 FT2

Application Equipment

	A
Appl. Equipment:	CO2 sprayer
Equipment Type:	BACSPR
Operation Pressure, Unit:	30 PSI
Nozzle Type:	XR
Nozzle Size:	8002
Boom Length, Unit:	6.67 FT
Spray Volume, Unit:	15 GPA

Herbicide Response Screen of POST Applications - Non-Crop.

Trial ID: 15-COL-POSTscreen-70 Location: Collinsville, IL Trial Year: 2015
Investigator: Ronald F. Krausz

Pest Code							AMAPA-HR	AMAPA-HR	AMAPA-HR
Crop Code							6-26-15	7-10-15	8-7-15
Rating Date							Control	Control	Control
Rating Type							Percent	Percent	Percent
Rating Unit							14 DA-A	28 DA-A	56 DA-A
Rating Timing									
Trt-Eval Interval									
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Rate	Growth Unit	Appl Stage	Code
1	NONTREATED								
2	ROUNDUP POWERMAX N-PAK AMS	4.5 SL 100 SL		2.25 lb ae/a 5 % v/v	64 fl oz/a 5 % v/v		3-4"W 3-4"W	A A	58 de 0 d 0 d
3	PURSUIT COC (PRIME OIL) N-PAK AMS	2 SL 100 SL 100 SL		0.0625 lb ai/a 1 % v/v 5 % v/v	4 fl oz/a 1 % v/v 5 % v/v		3-4"W 3-4"W 3-4"W	A A A	8 f 0 d 0 d
4	AATREX 4L COC (PRIME OIL)	4 SC 100 SL		1 lb ai/a 1 % v/v	1 qt/a 1 % v/v		3-4"W 3-4"W	A A	99 a 75 ab 42 bc
5	CALLISTO COC (PRIME OIL)	4 SC 100 SL		0.094 lb ai/a 1 % v/v	3 fl oz/a 1 % v/v		3-4"W 3-4"W	A A	38 e 17 cd 8 cd
6	2,4-D LV 4	3.8 EC		0.475 lb ae/a	1 pt/a		3-4"W	A	78 bcd 50 bc 42 bc
7	2,4-D LV 4	3.8 EC		0.95 lb ae/a	2 pt/a		3-4"W	A	92 ab 88 a 80 a
8	CLARITY	4 SL		0.25 lb ae/a	8 fl oz/a		3-4"W	A	65 cd 33 cd 17 cd
9	CLARITY	4 SL		0.5 lb ae/a	16 fl oz/a		3-4"W	A	83 abc 70 ab 42 bc
10	GRAMOXONE 2 SL COC (PRIME OIL)	2 SL 100 SL		0.625 lb ai/a 1 % v/v	2.5 pt/a 1 % v/v		3-4"W 3-4"W	A A	99 a 80 ab 67 ab
LSD P=.05							20.2	36.1	35.0
Standard Deviation							11.7	20.9	20.2
CV							16.94	45.41	61.27
Replicate F							0.047	0.909	2.788
Replicate Prob(F)							0.9538	0.4228	0.0915
Treatment F							20.183	8.306	6.087
Treatment Prob(F)							0.0001	0.0002	0.0011

Means followed by same letter do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Herbicide Response Screen of POST Applications - Non-Crop.

Trial ID: 15-COL-POSTscreen-70 Location: Collinsville, IL Trial Year: 2015
Investigator: Ronald F. Krausz

Trial Comments

1. Protocol: SIU.
2. Ratings:
 WC 14, 28, and 56 DA-A.
3. No yield (non-crop).
4. Photos.
5. Rainfall following the 3-4"W application was 2.14 inch over 3 days beginning 2 days later.
6. Reduction in weed control at 28 DA-A was due to new emergence and regrowth.
7. AMAPA-HR = Herbicide-resistant Palmer amaranth (glyphosate).
8. Not harvested (non-crop).