

Ohio State University
Horticulture and Crop Science

Enlist Efficacy 12-18" Erica

Title No. 2:

Trial ID: 12ENLISTERICA6-11

Location: Western Branch

Project ID: NA12P2E006-GF-2726-ERICA

Protocol ID: 12ENLISTERICA12-18"

Study Director: Anthony F. Dobbels

Investigator: Dr. Mark M. Loux

Sponsor Contact: Brad Hopkins, Dow AgroSciences

General Trial Information

Study Director: Anthony F. Dobbels Title: Research Specialist

Investigator: Dr. Mark M. Loux Title: Professor

Trial Location

City: South Charleston

Latitude of LL Corner °: 39.85815 N

State/Prov.: Ohio

Longitude of LL Corner °: 83.67669 W

Postal Code: 45368

Country: USA

Pest Description

Pest 1 Type: W Code: ERICA Conyza canadensis

Common Name: Canada horseweed

Pest 2 Type: W Code: AMBTR Ambrosia trifida

Common Name: Giant ragweed

Site and Design

Plot Width, Unit: 10 FT

Site Type: FIELD field

Plot Length, Unit: 30 FT

Experimental Unit: 1 PLOT plot

Plot Area, Unit: 300 FT2

Tillage Type: NOTILL no-till

Replications: 4

Study Design: RACOB L Randomized Complete Block (RCB)

Untreated Arrangement: INCLUDED single control randomized in each block

Trial Initiation Comments:

Soil Description

Description Name: G-7 West

% OM: 1.7

Texture: SIL silt loam

pH: 6.1

Soil Name: Crosby

CEC: 12.8

Fert. Level: G good

Soil Drainage: G good

Application Description

Application Date: Jun-26-2012

Time of Day: 8:30 A.M.

Application Method: SPRAY

Application Timing: POST

Application Placement: BROFOL

Air Temperature, Unit: 64 F

% Relative Humidity: 58

Wind Velocity, Unit: 5 MPH

Wind Direction: NE

Dew Presence (Y/N): N no

Soil Temperature, Unit: 68 F

Soil Moisture: DRY

% Cloud Cover: 0

Next Rain Occurred On: Jun-29-2012

Pest Stage At Each Application

Pest 1 Code, Type, Scale: ERICA W

Stage Majority, Percent: 19 100

Height, Unit: 12 IN

Height Minimum, Maximum: 12 24

Density, Unit: 18 M2

Pest 2 Code, Type, Scale: AMBTR W

Stage Majority, Percent: 19 100

Height, Unit: 24 IN

Height Minimum, Maximum: 24 36

Density, Unit: 22 M2

Ohio State University
Horticulture and Crop Science

Application Equipment

Appl. Equipment: A
Equipment Type: 6 foot boom
Operation Pressure, Unit: SPRBAC
Nozzle Type: 46 PSI
Nozzle Size: AI XR
Nozzle Spacing, Unit: 110015
Boom Length, Unit: 18 IN
Boom Height, Unit: 6 FT
Ground Speed, Unit: 20 IN
Carrier: 3 MPH
Spray Volume, Unit: WATER
Mix Size, Unit: 15 GPA
Propellant: 1 Liters
CO2

Ohio State University
Horticulture and Crop Science

Enlist Efficacy 12-18" Erica

Title No. 2:

Trial ID: 12ENLISTERICA6-11

Location: Western Branch

Project ID: NA12P2E006-GF-2726-ERICA

Protocol ID: 12ENLISTERICA12-18"

Study Director: Anthony F. Dobbels

Investigator: Dr. Mark M. Loux

Sponsor Contact: Brad Hopkins, Dow AgroSciences

Pest Type	W Weed	W Weed	W Weed	W Weed						
Pest Code	AMBTR	ERICA	AMBTR	ERICA						
Pest Scientific Name	Ambrosia trifi>	Conyza canad>	Ambrosia trifi>	Conyza canad>						
Pest Name	Giant ragweed	Canada horsewe>	Giant ragweed	Canada horsewe>						
Rating Date	Jul-10-2012	Jul-10-2012	Jul-23-2012	Jul-23-2012						
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO						
Rating Unit	%	%	%	%						
Number of Subsamples	1	1	1	1						
Days After First/Last Applic.	14 14	14 14	27 27	27 27						
Trt-Eval Interval	14 DA-A	14 DA-A	27 DA-A	27 DA-A						
Number of Decimals	0	0	0	0						
Trt Treatment No. Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	1	2	3	4
1 GF-2726	0.97 lb ae/a	ae/a	37.4 oz/a	oz/a	6-10"	A	74 ef	28 def	98 a	28 hij
1 N-PAK AMS	2.5 % v/v	v/v	48 oz/a	oz/a	6-10"					
2 GF-2726	1.5 lb ae/a	ae/a	57.5 oz/a	oz/a	6-10"	A	80 b-e	38 d	96 a	43 e-h
2 N-PAK AMS	2.5 % v/v	v/v	48 oz/a	oz/a	6-10"					
3 GF-2726	1.95 lb ae/a	ae/a	75 oz/a	oz/a	6-10"	A	95 a	30 def	100 a	51 efg
3 N-PAK AMS	2.5 % v/v	v/v	48 oz/a	oz/a	6-10"					
4 Liberty	0.53 lb ai/a	ai/a	29 oz/a	oz/a	6-10"	A	79 cde	77 b	75 de	76 abc
4 N-PAK AMS	2.5 % v/v	v/v	48 oz/a	oz/a	6-10"					
5 GF-2726	1.5 lb ae/a	ae/a	57.5 oz/a	oz/a	6-10"	A	90 a	90 ab	93 ab	90 a
5 Liberty	0.53 lb ai/a	ai/a	29 oz/a	oz/a	6-10"	A				
5 N-PAK AMS	2.5 % v/v	v/v	48 oz/a	oz/a	6-10"					
6 GF-2726	1.95 lb ae/a	ae/a	75 oz/a	oz/a	6-10"	A	93 a	93 a	96 a	86 ab
6 Liberty	0.53 lb ai/a	ai/a	29 oz/a	oz/a	6-10"	A				
6 N-PAK AMS	2.5 % v/v	v/v	48 oz/a	oz/a	6-10"					
7 UTC							0 h	0 g	0 f	0 k
8 GF-2726	1.5 lb ae/a	ae/a	57.5 oz/a	oz/a	6-10"	A	89 ab	28 def	100 a	38 f-i
8 Cadet	0.047 lb ai/a	ai/a	0.6 oz/a	oz/a	6-10"					
8 N-PAK AMS	2.5 % v/v	v/v	48 oz/a	oz/a	6-10"					
9 GF-2726	1.95 lb ae/a	ae/a	75 oz/a	oz/a	6-10"	A	94 a	30 def	99 a	35 ghi
9 Cadet	0.047 lb ai/a	ai/a	0.6 oz/a	oz/a	6-10"					
9 N-PAK AMS	2.5 % v/v	v/v	48 oz/a	oz/a	6-10"					
10 GF-2726	1.5 lb ae/a	ae/a	57.5 oz/a	oz/a	6-10"	A	88 abc	23 ef	98 a	20 ij
10 Starane Ultra	0.065 lb ai/a	ai/a	3 oz/a	oz/a	6-10"					
10 N-PAK AMS	2.5 % v/v	v/v	48 oz/a	oz/a	6-10"					
11 GF-2726	1.95 lb ae/a	ae/a	75 oz/a	oz/a	6-10"	A	94 a	30 def	100 a	38 f-i
11 Starane Ultra	0.065 lb ai/a	ai/a	3 oz/a	oz/a	6-10"					
11 N-PAK AMS	2.5 % v/v	v/v	48 oz/a	oz/a	6-10"					
12 GF-2726	1.5 lb ae/a	ae/a	57.5 oz/a	oz/a	6-10"	A	87 a-d	38 d	98 a	51 efg
12 Firstrate	0.0158 lb ai/a	ai/a	0.3 oz/a	oz/a	6-10"					
12 N-PAK AMS	2.5 % v/v	v/v	48 oz/a	oz/a	6-10"					
13 GF-2726	1.95 lb ae/a	ae/a	75 oz/a	oz/a	6-10"	A	87 a-d	35 de	100 a	60 cde
13 Firstrate	0.0158 lb ai/a	ai/a	0.3 oz/a	oz/a	6-10"					
13 N-PAK AMS	2.5 % v/v	v/v	48 oz/a	oz/a	6-10"					
14 GF-2726	1.95 lb ae/a	ae/a	75 oz/a	oz/a	6-10"	A	91 a	35 de	100 a	58 de
14 Firstrate	0.0315 lb ai/a	ai/a	0.6 oz/a	oz/a	6-10"					
14 N-PAK AMS	2.5 % v/v	v/v	48 oz/a	oz/a	6-10"					

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.

Ohio State University
Horticulture and Crop Science

Pest Type						W Weed	W Weed	W Weed	W Weed	
Pest Code						AMBTR	ERICA	AMBTR	ERICA	
Pest Scientific Name						Ambrosia trifida>	Conyza canadensis>	Ambrosia trifida>	Conyza canadensis>	
Pest Name						Giant ragweed	Canada horseweed	Giant ragweed	Canada horseweed	
Rating Date						Jul-10-2012	Jul-10-2012	Jul-23-2012	Jul-23-2012	
Rating Type						CONTRO	CONTRO	CONTRO	CONTRO	
Rating Unit						%	%	%	%	
Number of Subsamples						1	1	1	1	
Days After First/Last Applic.						14 14	14 14	27 27	27 27	
Trt-Eval Interval						14 DA-A	14 DA-A	27 DA-A	27 DA-A	
Number of Decimals						0	0	0	0	
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Growth Stage	Appl Code	1	2	3	4
15	UTC						0 h	0 g	0 f	0 k
16	GF-2726	1.5 lb ae/a	57.5 oz/a		6-10"	A	88 abc	30 def	100 a	54 def
	16 Hornet	0.214 lb ai/a	5 oz/a		6-10"					
	16 N-PAK AMS	2.5 % v/v	48 oz/a		6-10"					
17	GF-2726	1.95 lb ae/a	75 oz/a		6-10"	A	87 a-d	30 def	100 a	59 cde
	17 Hornet	0.214 lb ai/a	5 oz/a		6-10"					
	17 N-PAK AMS	2.5 % v/v	48 oz/a		6-10"					
18	Durango DMA	1 lb ae/a	32 oz/a		6-10"	A	66 fg	3 g	68 e	10 jk
	18 N-PAK AMS	2.5 % v/v	48 oz/a		6-10"					
19	Durango DMA	1 lb ae/a	32 oz/a		6-10"	A	78 de	33 de	81 cd	49 efg
	19 Clarity	0.5 lb ai/a	16 oz/a		6-10"					
	19 N-PAK AMS	2.5 % v/v	48 oz/a		6-10"					
20	GF-2654 2,4-D Choline	0.95 lb ae/a	32 oz/a		6-10"	A	58 g	18 f	85 bc	25 hij
	20 N-PAK AMS	2.5 % v/v	48 oz/a		6-10"					
21	GF-2726	1.95 lb ae/a	75 oz/a		6-10"	A	94 a	55 c	100 a	70 bcd
	21 Sharpen	0.0223 lb ai/a	1 oz/a		6-10"					
	21 N-PAK AMS	2.5 % v/v	48 oz/a		6-10"					
22	GF-2726	1.95 lb ae/a	75 oz/a		6-10"	A	93 a	25 def	99 a	24 ij
	22 Aim	0.0156 lb ai/a	1 oz/a		6-10"					
	22 N-PAK AMS	2.5 % v/v	48 oz/a		6-10"					
	LSD (P=.05)						10.0	13.3	7.5	18.1
	Standard Deviation						7.1	9.4	5.3	12.8
	CV						9.12	27.14	6.22	29.32
	Replicate F						1.827	2.556	1.008	0.426
	Replicate Prob(F)						0.1513	0.0631	0.3950	0.7351
	Treatment F						57.657	27.423	119.623	15.409
	Treatment Prob(F)						0.0001	0.0001	0.0001	0.0001

Pest Type

W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, = US

ERICA, Conyza canadensis, = US

Rating Type

CONTRO = control / burndown or knockdown

Rating Unit

% = percent