

# The Ohio State University

## Tankmix Burndown marestail option

Trial ID: 16 tanmix ERICA      Location: F9      Trial Year: 2016  
 Protocol ID: 16 tanmix ERICA      Investigator: Dr. Mark M. Loux  
 Project ID:      Study Director: Bryan Reeb  
 Sponsor Contact:

### General Trial Information

**Study Director:** Bryan Reeb  
**Investigator:** Dr. Mark M. Loux

**Conducted Under GLP:** No  
**Conducted Under GEP:** No

### Contacts

**Study Director:** Bryan Reeb  
**Investigator:** Dr. Mark M. Loux

### Pest Description

**Pest 1 Type:** W    **Code:** ERICA    *Conyza canadensis*  
**Common Name:** Canada horseweed

**Pest 2 Type:** W    **Code:** SETFA    *Setaria faberi*  
**Common Name:** Giant foxtail

**Pest 3 Type:** W    **Code:** AMBTR    *Ambrosia trifida*  
**Common Name:** Giant ragweed

**Pest 4 Type:** W    **Code:** CHEAL    *Chenopodium album*  
**Common Name:** Common lambsquarters

**Pest 5 Type:** W    **Code:** SENGL    *Senecio glabellus*  
**Common Name:** Cressleaf groundsel

**Pest 6 Type:** W    **Code:** AMARE    *Amaranthus retroflexus*  
**Common Name:** Redroot pigweed

**Pest 7 Type:** W    **Code:** TAROF    *Taraxacum officinale*  
**Common Name:** Common dandelion

### Site and Design

**Treated Plot Width:** 6.67 FT  
**Treated Plot Length:** 30 FT  
**Treated Plot Area:** 200.1 FT<sup>2</sup>    **Treatments:** 10  
**Replications:** 3

**Site Type:** FIELD    field  
**Experimental Unit:** 1    PLOT    plot  
**Tillage Type:** NOTILL    no-till  
**Study Design:** RACOB    Randomized Complete Block (RCB)

### Soil Description

**Description Name:** F-9 West  
**% OM:** 2      **Texture:** SICL silty clay loam  
**pH:** 6.2      **Soil Name:** Kokomo  
**CEC:** 9.7      **Fert. Level:** G good  
**Soil Drainage:** G good

### Application Description

	A	B
<b>Application Date:</b>	5-19-2016	6-24-2016
<b>Appl. Start Time:</b>	9:45 AM	8:00 AM
<b>Appl. Stop Time:</b>	10:00 AM	8:15 AM
<b>Interval to Prev. Appl., Unit:</b>		36 DAYS
<b>Application Method:</b>	SPRAY	SPRAY
<b>Application Timing:</b>	7 EPP	POST
<b>Application Placement:</b>	BROSOI	BROFOL
<b>Applied By:</b>	ACKLEY/LAMB REEB	
<b>Air Temperature, Unit:</b>	59 F	69 F
<b>% Relative Humidity:</b>	43	78
<b>Wind Velocity, Unit:</b>	7.5 MPH	5 MPH
<b>Wind Direction:</b>	ENE	ENE
<b>Dew Presence (Y/N):</b>	N no	N no
<b>Soil Temperature, Unit:</b>	52 F	69 F
<b>Soil Moisture:</b>	MOIST	SLIDRY
<b>% Cloud Cover:</b>	0	20
<b>Next Moisture Occurred On:</b>	5-20-2016	6-26-2016
<b>Time to Next Moisture, Unit:</b>	1 DAY	2 DAYS

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### Crop Stage At Each Application

**B**  
 Stage Scale Used: BBCH  
 Stage Majority, Percent: 13 100  
 Diameter, Unit: 7 IN

### Pest Stage At Each Application

	<b>A</b>	<b>B</b>
Pest 1 Code, Type, Scale:	ERICA W	ERICA W
Stage Majority, Percent:	30 50	30 100
Stage Minimum, Percent:	19 50	
Diameter, Unit:	3 IN	
Height, Unit:	8 IN	16 IN
Height Minimum, Maximum:	1 10	12 24
Pest 2 Code, Type, Scale:	SETFA W	SETFA W
Stage Majority, Percent:	12 100	16 60
Stage Minimum, Percent:		15 40
Stage Maximum, Percent:		16 60
Height, Unit:	1 IN	6 IN
Height Minimum, Maximum:	1 2	4 8
Pest 3 Code, Type, Scale:	AMBTR W	AMBTR W
Stage Majority, Percent:	14 100	15 60
Stage Minimum, Percent:		19 40
Stage Maximum, Percent:		15 60
Height, Unit:	6 IN	10 IN
Height Minimum, Maximum:	4 8	6 18
Pest 4 Code, Type, Scale:	CHEAL W	CHEAL W
Stage Majority, Percent:	19 100	
Height, Unit:	4 IN	
Height Minimum, Maximum:	3 5	
Pest 5 Code, Type, Scale:	SENGL W	SENGL W
Stage Majority, Percent:	67 100	
Height, Unit:	24 IN	
Pest 6 Code, Type, Scale:	AMARE W	AMARE W
Stage Majority, Percent:		18 60
Stage Minimum, Percent:		15 40
Stage Maximum, Percent:		18 60
Height, Unit:		2 IN
Height Minimum, Maximum:		2 4
Pest 7 Code, Type, Scale:	TAROF W	TAROF W
Stage Majority, Percent:		89 100
Height, Unit:		12 IN
Height Minimum, Maximum:		10 16

### Application Equipment

	<b>A</b>	<b>B</b>
Appl. Equipment:	6' BACKPACK	10' BACKPACK
Equipment Type:	BACCAI	BACCAI
Operation Pressure, Unit:	44 PSI	44 PSI
Nozzle Type:	AIXR	AIXR
Nozzle Size:	11015	11015
Nozzle Spacing, Unit:	18 IN	18 IN
Nozzles/Row:	4	6
Boom Length, Unit:	6.67 FT	10 FT
Boom Height, Unit:	20 IN	20 IN
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	15 gal/ac	15 gal/ac
Mix Size, Unit:	1 liters	2 liters
Propellant:	COMCO2	COMCO2

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed			
Pest Code	ERICA	ERICA	ERICA	ERICA	ERICA			
Pest Scientific Name	Conyza canadensis	Conyza canadensis	Conyza canadensis	Conyza canadensis	Conyza canadensis			
Pest Name	Canada horseweed	Canada horseweed	Canada horseweed	Canada horseweed	Canada horseweed			
Crop Name	small erica	Large Erica	small erica	Large Erica	small erica			
Rating Date	6-3-2016	6-3-2016	6-23-2016	6-23-2016	7-14-2016			
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1			
SE Group No.	1	2	3	4	5			
Days After First/Last Applic.	15 15	15 15	35 35	35 35	56 20			
Trt-Eval Interval	15 DA-A	15 DA-A	35 DA-A	35 DA-A				
Trt Treatment No. Name	Other Rate	Other Rate	Appl Unit Code	1*	2*	3*	4*	5*
1 Gramoxone SL	3 pt/a		A	95.0 -	45.0 c	60.0 -	50.0 c	43.3 b
Sharpen	1 oz/a		A					
MSO	1 % v/v		A					
N-pak ams	3 qt/a		A					
2 Gramoxone SL	3 pt/a		A	100.0 -	63.3 bc	90.0 -	66.7 abc	100.0 a
Trivence - 10 oz			A					
Classic	1.56 oz/a		A					
Sencor DF	5.95 oz/a		A					
Valor SX	2.5 oz/a		A					
NIS	0.25 % v/v		A					
N-pak ams	3 qt/a		A					
3 Gramoxone SL	3 pt/a		A	100.0 -	81.7 ab	100.0 -	86.7 ab	100.0 a
Boundary	3 pt/a		A					
NIS	0.25 % v/v		A					
N-pak ams	3 qt/a		A					
4 Roundup Power Max	32 oz/a		A	100.0 -	100.0 a	100.0 -	100.0 a	100.0 a
2,4-D Ester	1 pt/a		A					
Sharpen	1 oz/a		A					
MSO	1 % v/v		A					
N-pak ams	3 qt/a		A					
5 Roundup Power Max	32 oz/a		A	100.0 -	51.7 c	96.7 -	53.3 bc	100.0 a
2,4-D Ester	1 pt/a		A					
Trivence - 10 oz			A					
Classic	1.56 oz/a		A					
Sencor DF	5.95 oz/a		A					
Valor SX	2.5 oz/a		A					
N-pak ams	3 qt/a		A					
6 Roundup Power Max	32 oz/a		A	100.0 -	46.7 c	90.0 -	53.3 bc	100.0 a
2,4-D Ester	1 pt/a		A					
Boundary	3 pt/a		A					
N-pak ams	3 qt/a		A					
7 Liberty	32 oz/a		A	100.0 -	96.7 a	100.0 -	95.0 a	98.3 a
Sharpen	1 oz/a		A					
MSO	1 % v/v		A					
N-pak ams	3 qt/a		A					
8 Liberty	32 oz/a		A	100.0 -	88.3 a	96.7 -	93.3 a	100.0 a
Trivence - 10 oz			A					
Classic	1.56 oz/a		A					
Sencor DF	5.95 oz/a		A					
Valor SX	2.5 oz/a		A					
N-pak ams	3 qt/a		A					
9 Liberty	32 oz/a		A	100.0 -	86.7 a	100.0 -	80.0 abc	98.3 a
Boundary	3 pt/a		A					
N-pak ams	3 qt/a		A					

Means followed by same letter or symbol do not significantly differ (P=0.05, LSD)  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 \* Adjusted means

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Pest Code	ERICA	ERICA	ERICA	ERICA	ERICA			
Pest Scientific Name	Conyza canadensis>							
Pest Name	Canada horseweed>							
Crop Name	small erica	Large Erica	small erica	Large Erica	small erica			
Rating Date	6-3-2016	6-3-2016	6-23-2016	6-23-2016	7-14-2016			
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1			
SE Group No.	1	2	3	4	5			
Days After First/Last Applic.	15 15	15 15	35 35	35 35	56 20			
Trt-Eval Interval	15 DA-A	15 DA-A	35 DA-A	35 DA-A				
Trt Treatment No. Name	Other Rate	Other Rate	Appl Unit Code	1*	2*	3*	4*	5*
10 Roundup Power Max	32 oz/a		A	100.0 -	55.0 c	86.7 -	56.7 bc	86.7 a
2,4-D Ester	1 pt/a		A					
Matador	3 pt/a		A					
Dual II Magnum	1.57 pt/a		A					
Metribuzin	4.5 oz/a		A					
Pursuit	3 oz/a		A					
N-pak ams	3 qt/a		A					
LSD P=.05				4.70	22.50	23.56	36.25	19.47
Standard Deviation				2.74	13.12	13.73	21.13	11.35
CV				2.75	18.34	14.93	28.75	12.25
Bartlett's X2				0.0	4.972	9.337	7.469	10.896
P(Bartlett's X2)				.	0.761	0.096	0.382	0.012*
Skewness				-5.4772*	-0.3246	-3.1726*	-0.3621	-2.8594*
Kurtosis				30.0*	-1.1833	11.9677*	-1.5258	7.7128*
Replicate F				1.000	1.221	1.471	0.291	0.181
Replicate Prob(F)				0.3874	0.3183	0.2560	0.7509	0.8359
Treatment F				1.000	7.970	2.404	2.589	7.388
Treatment Prob(F)				0.4742	0.0001	0.0541	0.0410	0.0002

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Pest Type      W Weed  
 Pest Code      ERICA  
 Pest Scientific Name      Conyza canadensis  
 Pest Name      Canada horsewee  
 Crop Name      Large Erica  
 Rating Date      7-14-2016  
 Rating Type      CONTRO  
 Rating Unit      %  
 Number of Subsamples      1  
 SE Group No.      6  
 Days After First/Last Applic.      56 20  
 Trt-Eval Interval

Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit Code	6*
1	Gramoxone SL	3 pt/a		A	55.0 c
	Sharpen	1 oz/a		A	
	MSO	1 % v/v		A	
	N-pak ams	3 qt/a		A	
2	Gramoxone SL	3 pt/a		A	75.0 abc
	Trivence - 10 oz			A	
	Classic	1.56 oz/a		A	
	Sencor DF	5.95 oz/a		A	
	Valor SX	2.5 oz/a		A	
	NIS	0.25 % v/v		A	
	N-pak ams	3 qt/a		A	
3	Gramoxone SL	3 pt/a		A	93.3 ab
	Boundary	3 pt/a		A	
	NIS	0.25 % v/v		A	
	N-pak ams	3 qt/a		A	
4	Roundup Power Max	32 oz/a		A	96.7 a
	2,4-D Ester	1 pt/a		A	
	Sharpen	1 oz/a		A	
	MSO	1 % v/v		A	
	N-pak ams	3 qt/a		A	
5	Roundup Power Max	32 oz/a		A	56.7 c
	2,4-D Ester	1 pt/a		A	
	Trivence - 10 oz			A	
	Classic	1.56 oz/a		A	
	Sencor DF	5.95 oz/a		A	
	Valor SX	2.5 oz/a		A	
	N-pak ams	3 qt/a		A	
6	Roundup Power Max	32 oz/a		A	51.7 c
	2,4-D Ester	1 pt/a		A	
	Boundary	3 pt/a		A	
	N-pak ams	3 qt/a		A	
7	Liberty	32 oz/a		A	90.0 ab
	Sharpen	1 oz/a		A	
	MSO	1 % v/v		A	
	N-pak ams	3 qt/a		A	
8	Liberty	32 oz/a		A	86.7 ab
	Trivence - 10 oz			A	
	Classic	1.56 oz/a		A	
	Sencor DF	5.95 oz/a		A	
	Valor SX	2.5 oz/a		A	
	N-pak ams	3 qt/a		A	
9	Liberty	32 oz/a		A	85.0 ab
	Boundary	3 pt/a		A	
	N-pak ams	3 qt/a		A	

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Pest Type      W Weed  
 Pest Code      ERICA  
 Pest Scientific Name      Conyza canadensis  
 Pest Name      Canada horseweed  
 Crop Name      Large Erica  
 Rating Date      7-14-2016  
 Rating Type      CONTRO  
 Rating Unit      %  
 Number of Subsamples      1  
 SE Group No.      6  
 Days After First/Last Applic.      56 20  
 Trt-Eval Interval

Trt No.	Treatment Name	Other Rate	Other Rate Unit	Appl Code	
					6*
10	Roundup Power Max	32 oz/a		A	66.7 bc
	2,4-D Ester	1 pt/a		A	
	Matador	3 pt/a		A	
	Dual II Magnum	1.57 pt/a		A	
	Metribuzin	4.5 oz/a		A	
	Pursuit	3 oz/a		A	
	N-pak ams	3 qt/a		A	
	LSD P=.05				27.04
	Standard Deviation				15.76
	CV				20.83
	Bartlett's X2				6.607
	P(Bartlett's X2)				0.678
	Skewness				-0.5351
	Kurtosis				-0.7532
	Replicate F				0.255
	Replicate Prob(F)				0.7778
	Treatment F				3.504
	Treatment Prob(F)				0.0113

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Pest Type

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

Pest Code

ERICA, Conyza canadensis, = ERICA, Conyza canadensis,

Rating Type

CONTRO = control / burndown or knockdown

Rating Unit

% = percent