

# Purdue University Weed Science

## Showcase Impact Programs in Corn

Trial ID: 15S-CORT-NTC-18      Location: Cortland      Trial Year: 2015  
 Protocol ID: 15CO4H 028      Investigator: Dr. Bill Johnson  
 Project ID: 15C04H028XBIN505      Study Director: Joey Heneghan  
 Sponsor Contact: AMVAC - Joseph Argentine

## General Trial Information

**Study Director:** Joey Heneghan      **Title:** Research Associate  
**Investigator:** Dr. Bill Johnson      **Title:** Professor  
**Conducted Under GLP:** No  
**Conducted Under GEP:** No

## Contacts

**Study Director:** Joey Heneghan      **Title:** Research Associate  
**Organization:** Purdue University  
**Address:** 915 W State St  
**City+State/Prov:** West Lafayette, IN      **Mobile No.:** 317 691 4347  
**Postal Code:** 47907      **E-mail:** jhenegh@purdue.edu  
**Country:** USA      United States

**Investigator:** Dr. Bill Johnson      **Title:** Professor  
**Organization:** Purdue University  
**Address:** 915 W State St      **Phone No.:** 765 494 4656  
**City+State/Prov:** West Lafayette, IN      **Mobile No.:** 765 404 9801  
**Postal Code:** 47907      **E-mail:** wgj@purdue.edu  
**Country:** USA      United States

## Crop Description

**Crop 1:** ZEAMX      Zea mays      Corn  
**Variety:** DKC 62-08      **BBCH Scale:** BCOR  
**Planting Date:** May-28-2015  
**Planting Rate, Unit:** 32000 S/A      **Planting Method:** PLANTD planted  
**Row Spacing, Unit:** 30 IN      **Planting Equipment:** PP      Plot Planter  
**Soil Temperature, Unit:** 68 F      **Emergence Date:** Jun-3-2015  
**Soil Moisture:** SLIDRY slightly dry      **Harvested Width, Unit:** 5 FT  
**Harvested Length, Unit:** 25 FT

## Pest Description

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

**Pest 2 Type:** W      **Code:** CHEAL *Chenopodium album*  
**Common Name:** Common lambsquarters

**Pest 3 Type:** W      **Code:** SIDSP *Sida spinosa*  
**Common Name:** Prickly sida

## Site and Design

**Treated Plot Width:** 10 FT  
**Treated Plot Length:** 30 FT  
**Treated Plot Area:** 300 FT<sup>2</sup>      **Treatments:** 6  
**Replications:** 4      **Study Design:** RACOB L Randomized Complete Block (RCB)

## Maintenance

No.	Date	Maintenance Product Name	Form Conc	Form Type	Rate	Rate Unit
1.	May-26-2015	Gramoxone 2	2	L	3.5	PT/A

**Comment:** BURNDOWN PRIOR TO TRIAL INITIATION

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### Application Description

	A	B	C
Application Date:	May-28-2015	Jun-24-2015	Jun-30-2015
Appl. Start Time:	9:15AM	1:00PM	5:15PM
Appl. Stop Time:	9:30 AM	1:15 PM	5:30 PM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	E POST	POST
Application Placement:	BROADC	BROADC	BROADC
Applied By:	HENEZHAN	HENEZHAN	HENEZHAN
Air Temperature, Unit:	69 F	79 F	76 F
% Relative Humidity:	90	41	74
Wind Velocity, Unit:	2 MPH	2 MPH	3 MPH
Wind Direction:	N	NE	W
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	68 F	84 F	79 F
Soil Moisture:	SLIDRY	SLIDRY	WET
% Cloud Cover:	100	35	50

### Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:		BBCH	BBCH
Stage Majority, Percent:		V6 80	V7 80
Stage Minimum, Percent:		V5 20	V6 10
Stage Maximum, Percent:			V8 10
Height, Unit:		18 IN	30 IN
Height Minimum, Maximum:		16 19	28 33

### Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ERICA W	ERICA W	ERICA W
Height, Unit:		5 IN	6 IN
Height Minimum, Maximum:		2 19	2 12
Density, Unit:		4 YD2	1 YD2
Pest 2 Code, Type, Scale:	CHEAL W	CHEAL W	CHEAL W
Height, Unit:		6 IN	5 IN
Height Minimum, Maximum:		2 11	4 10
Density, Unit:		8 YD2	1 YD2
Pest 3 Code, Type, Scale:	SIDSP W	SIDSP W	SIDSP W
Height, Unit:		3 IN	6 IN
Height Minimum, Maximum:		1 4	2 8
Density, Unit:		6 YD2	2 YD2

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### Application Equipment

	A	B	C
<b>Appl. Equipment:</b>	CO2 BP	CO2 BP	CO2 BP
<b>Equipment Type:</b>	SPRBAC	SPRBAC	SPRBAC
<b>Operation Pressure, Unit:</b>	19 PSI	18 PSI	19 PSI
<b>Nozzle Type:</b>	FLAT FAN	FLAT FAN	FLAT FAN
<b>Nozzle Size:</b>	11002XR	11002XR	11002XR
<b>Nozzle Spacing, Unit:</b>	15 IN	15 IN	15 IN
<b>Nozzles/Row:</b>	8	8	8
<b>Boom Length, Unit:</b>	10 FT	10 FT	10 FT
<b>Boom Height, Unit:</b>	18 IN	18 IN	18 IN
<b>Ground Speed, Unit:</b>	3 MPH	3 MPH	3 MPH
<b>Carrier:</b>	H2O	H2O	H2O
<b>Spray Volume, Unit:</b>	15 GAL/AC	15 GAL/AC	15 GAL/AC
<b>Mix Size, Unit:</b>	1.8 liters	1.8 liters	1.8 liters
<b>Propellant:</b>	CO2	CO2	CO2

Reps: 4      Appl Code: A      Plots: 10 by 30 feet  
 Spray vol: 15 GAL/AC      Mix Size: 1.8 liters (calculated mix size 1.5642)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Appl Unit	Code	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
2	HARNESS XTRA	5.6 LB/GAL	L	L	3.2 pt/a	A	A	48.0 ml/mx	102	301	402	404
3	HARNESS XTRA	5.6 LB/GAL	L	L	3.2 pt/a	A	A	48.0 ml/mx	103	203	403	502
4	HARNESS XTRA	5.6 LB/GAL	L	L	3.2 pt/a	A	A	48.0 ml/mx	104	302	401	504

Reps: 4      Appl Code: B      Plots: 10 by 30 feet  
 Spray vol: 15 GAL/AC      Mix Size: 1.8 liters (calculated mix size 1.5642)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Appl Unit	Code	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
5	HARNESS XTRA	5.6 LB/GAL	L	L	3.2 pt/a	B	B	48.0 ml/mx	105	204	305	503
	IMPACT	2.8 LB/GAL	L	L	1 fl oz/a	B	B	0.9375 ml/mx				
	MSO ULTRA	100 %	L	L	0.5 % v/v	B	B	8.999 ml/mx				
	N-PAK - AMS	3.4 LBA/GAL	SL	SL	2.5 % v/v	B	B	45.0 ml/mx				
6	HALEX GT	4.389 LBAE/GAL	L	L	3.6 pt/a	B	B	54.0 ml/mx	201	205	304	501
	AATREX	4 LB/GAL	L	L	1 pt/a	B	B	15.0 ml/mx				
	ACTIVATOR 90 - NIS	90 %	L	L	0.25 % v/v	B	B	4.5 ml/mx				
	N-PAK - AMS	3.4 LBA/GAL	SL	SL	2.5 % v/v	B	B	45.0 ml/mx				

Reps: 4      Appl Code: C      Plots: 10 by 30 feet  
 Spray vol: 15 GAL/AC      Mix Size: 1.8 liters (calculated mix size 1.5642)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Appl Unit	Code	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
2	IMPACT	2.8 LB/GAL	L	L	0.75 fl oz/a	C	C	0.7031 ml/mx	102	301	402	404
	AATREX	4 LB/GAL	L	L	1 pt/a	C	C	15.0 ml/mx				
	MSO ULTRA	100 %	L	L	1 % v/v	C	C	18.0 ml/mx				
	N-PAK - AMS	3.4 LBA/GAL	SL	SL	2.5 % v/v	C	C	45.0 ml/mx				
3	IMPACT	2.8 LB/GAL	L	L	0.75 fl oz/a	C	C	0.7031 ml/mx	103	203	403	502
	AATREX	4 LB/GAL	L	L	1 pt/a	C	C	15.0 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL	SL	32 fl oz/a	C	C	30.0 ml/mx				
	MSO ULTRA	100 %	L	L	0.5 % v/v	C	C	8.999 ml/mx				
	N-PAK - AMS	3.4 LBA/GAL	SL	SL	2.5 % v/v	C	C	45.0 ml/mx				
4	IMPACT	2.8 LB/GAL	L	L	0.75 fl oz/a	C	C	0.7031 ml/mx	104	302	401	504
	AATREX	4 LB/GAL	L	L	1 pt/a	C	C	15.0 ml/mx				
	STATUS	61.1 %	WG	WG	3 oz/a	C	C	2.696 g/mx				
	MSO ULTRA	100 %	L	L	1 % v/v	C	C	18.0 ml/mx				
	N-PAK - AMS	3.4 LBA/GAL	SL	SL	2.5 % v/v	C	C	45.0 ml/mx				

Reps: 4      Appl Code: \_      Plots: 10 by 30 feet  
 Spray vol: 15 GAL/AC      Mix Size: 1.8 liters (calculated mix size 1.5642)

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 Project ID: 15C04H028XBIN505      Study Director: Joey Heneghan  
 Sponsor Contact: AMVAC - Joseph Argentine

Reps: 4      Appl Code: \_      Plots: 10 by 30 feet  
 Spray vol: 15 GAL/AC      Mix Size: 1.8 liters (calculated mix size 1.5642)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Unit	Appl Code	Amt to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	Untreated Check							101	202	303	405

Sort Order: Application Code, Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
240.000	ml	HARNESS XTRA	5.6	L	
3.809	ml	IMPACT	2.8	L	
75.000	ml	AATREX	4	L	
67.493	ml	MSO ULTRA	100	L	
281.219	ml	N-PAK - AMS	3.4	SL	
37.500	ml	ROUNDUP POWERMAX	4.5	SL	
3.370	g	STATUS	61.1	WG	
67.500	ml	HALEX GT	4.389	L	
5.624	ml	ACTIVATOR 90 - NIS	90	L	

\* 'Per area' calculations based on spray volume= 15 GAL/AC, mix size= 1.8 liters (mix size basis).

\* Product amount calculations increased 25 % for overage adjustment.

\* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 1.8 liters.

Pest Type	W Weed	W Weed	W Weed
Pest Code	ERICA	ERICA	ERICA
Pest Scientific Name	Conyza canadensis	Conyza canadensis	Conyza canadensis
Pest Name	Canada horseweed	Canada horseweed	Canada horseweed
Crop Code	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn
Part Rated	PLOT -	PLOT -	PLOT -
Rating Date	Jun-3-2015	Jun-3-2015	Jun-3-2015
Rating Type	PHYTO	PHYTO	PHYTO
Rating Unit	%	%	%
Number of Subsamples	1	1	1
Crop Stage Majority	VE	V1	V1
Assessed By	HENEGHAN	HENEGHAN	HENEGHAN
Days After First/Last Applic.	6 6	6 6	13 13
Trt-Eval Interval	6 DA-A	6 DA-A	13 DA-A
Plant-Eval Interval	6 DP-1	6 DP-1	13 DP-1
Days After Emergence	0 DE-1	0 DE-1	7 DE-1
ARM Action Codes			
Number of Decimals			

  

Trt Treatment	Rate	Appl	1	2	3	4	5
No. Name	Rate Unit	Code Plot					
1 Untreated Check		101	0.0	0.0	0.0	0.0	0.0
		202	0.0	0.0	0.0	0.0	0.0
		303	0.0	0.0	0.0	0.0	0.0
		405	0.0	0.0	0.0	0.0	0.0
		Mean =	0.0	0.0	0.0	0.0	0.0
2 HARNESS XTRA	3.2 pt/a	A 102	0.0	80.0	0.0	95.0	100.0
IMPACT	0.75 fl oz/a	C 301	0.0	100.0	0.0	90.0	88.6*
AATREX	1 pt/a	C 402	0.0	100.0	0.0	95.0	95.0
MSO ULTRA	1 % v/v	C 404	0.0	100.0	0.0	90.0	90.0
N-PAK - AMS	2.5 % v/v	C					
		Mean =	0.0	95.0	0.0	92.5	93.4
3 HARNESS XTRA	3.2 pt/a	A 103	0.0	80.0	0.0	85.0	100.0
IMPACT	0.75 fl oz/a	C 203	0.0	100.0	0.0	95.0	80.0
AATREX	1 pt/a	C 403	0.0	100.0	0.0	90.0	85.0
ROUNDUP POWERMAX	32 fl oz/a	C 502	0.0	100.0	0.0	95.0	90.0
MSO ULTRA	0.5 % v/v	C					
N-PAK - AMS	2.5 % v/v	C					
		Mean =	0.0	95.0	0.0	91.3	88.8

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Trial ID: 15S-CORT-NTC-18  
 Protocol ID: 15CO4H 028  
 Project ID: 15C04H028XBIN505

Location: Cortland      Trial Year: 2015  
 Investigator: Dr. Bill Johnson  
 Study Director: Joey Heneghan  
 Sponsor Contact: AMVAC - Joseph Argentine

Pest Type		W Weed		W Weed	W Weed
Pest Code		ERICA		ERICA	ERICA
Pest Scientific Name		<i>Conyza canadensis</i>		<i>Conyza canadensis</i>	<i>Conyza canadensis</i>
Pest Name		Canada horseweed		Canada horseweed	Canada horseweed
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	<i>Zea mays</i>	<i>Zea mays</i>	<i>Zea mays</i>	<i>Zea mays</i>	<i>Zea mays</i>
Crop Name	Corn	Corn	Corn	Corn	Corn
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
Rating Date	Jun-3-2015	Jun-3-2015	Jun-10-2015	Jun-10-2015	Jun-24-2015
Rating Type	PHYTO	CONTRO	PHYTO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Crop Stage Majority	VE		V1		
Assessed By	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN
Days After First/Last Applic.	6 6	6 6	13 13	13 13	27 27
Trt-Eval Interval	6 DA-A	6 DA-A	13 DA-A	13 DA-A	0 DA-B
Plant-Eval Interval	6 DP-1	6 DP-1	13 DP-1	13 DP-1	27 DP-1
Days After Emergence	0 DE-1	0 DE-1	7 DE-1	7 DE-1	21 DE-1
ARM Action Codes					
Number of Decimals					
Trt Treatment	Rate Appl				
No. Name	Rate Unit Code Plot	1	2	3	4
4 HARNESS XTRA	3.2 pt/a A 104	0.0	100.0	0.0	90.0
IMPACT	0.75 fl oz/a C 302	0.0	100.0	0.0	95.0
AATREX	1 pt/a C 401	0.0	100.0	0.0	95.0
STATUS	3 oz/a C 504	0.0	100.0	0.0	95.0
MISO ULTRA	1 % v/v C				
N-PAK - AMS	2.5 % v/v C				
	Mean =	0.0	100.0	0.0	93.8
5 HARNESS XTRA	3.2 pt/a B 105	0.0	0.0	0.0	0.0
IMPACT	1 fl oz/a B 204	0.0	0.0	0.0	0.0
MISO ULTRA	0.5 % v/v B 305	0.0	0.0	0.0	0.0
N-PAK - AMS	2.5 % v/v B 503	0.0	0.0	0.0	0.0
	Mean =	0.0	0.0	0.0	0.8
6 HALEX GT	3.6 pt/a B 201	0.0	0.0	0.0	0.0
AATREX	1 pt/a B 205	0.0	0.0	0.0	0.0
ACTIVATOR 90 - NIS	0.25 % v/v B 304	0.0	0.0	0.0	0.0
N-PAK - AMS	2.5 % v/v B 501	0.0	0.0	0.0	0.0
	Mean =	0.0	0.0	0.0	0.8

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Trt Treatment	Rate	Appl	W Weed		W Weed		W Weed		W Weed	
No. Name	Rate Unit	Code Plot	6	7	8	9	10	11		
1 Untreated Check		101	0.0	0.0	0.0	0.0	0.0	0.0		0.0
		202	0.0	0.0	0.0	0.0	0.0	0.0		0.0
		303	0.0	0.0	0.0	0.0	0.0	0.0		0.0
		405	0.0	0.0	0.0	0.0	0.0	0.0		0.0
		Mean =	0.0	0.0	0.0	0.0	0.0	0.0		0.0
2 HARNESS XTRA	3.2 pt/a	A 102	66.7*	0.0	100.0*	0.0	0.0	100.0		100.0
IMPACT	0.75 fl oz/a	C 301	60.0	0.0	100.0*	0.0	0.0	50.0		50.0
AATREX	1 pt/a	C 402	80.0	0.0	100.0	0.0	0.0	95.0		95.0
MSO ULTRA	1 % v/v	C 404	60.0	0.0	100.0*	0.0	0.0	80.0		80.0
N-PAK - AMS	2.5 % v/v	C								
		Mean =	66.7	0.0	100.0	0.0	0.0	81.3		81.3
3 HARNESS XTRA	3.2 pt/a	A 103	80.0*	0.0	100.0*	0.0	0.0	80.0		80.0
IMPACT	0.75 fl oz/a	C 203	80.0*	0.0	100.0	20.0	0.0	100.0		100.0
AATREX	1 pt/a	C 403	90.0	0.0	100.0*	15.0	0.0	80.0		80.0
ROUNDUP POWERMAX	32 fl oz/a	C 502	70.0	0.0	100.0	15.0	0.0	90.0		90.0
MSO ULTRA	0.5 % v/v	C								
N-PAK - AMS	2.5 % v/v	C								
		Mean =	80.0	0.0	100.0	12.5	0.0	87.5		87.5

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	SIDSP	ERICA	SIDSP	ERICA	SIDSP
Pest Scientific Name	Sida spinosa	Conyza canadensis	Sida spinosa	Conyza canadensis	Sida spinosa
Pest Name	Prickly sida	Canada horseweed	Prickly sida	Canada horseweed	Prickly sida
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn	Corn
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
Rating Date	Jun-24-2015	Jun-30-2015	Jun-30-2015	Jun-30-2015	Jul-9-2015
Rating Type	CONTRO	PHYTO	CONTRO	CONTRO	PHYTO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Crop Stage Majority		V7			V8
Assessed By	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN
Days After First/Last Applic.	27 27	33 6	33 6	33 6	42 9
Trt-Eval Interval	0 DA-B	6 DA-B	6 DA-B	6 DA-B	9 DA-C
Plant-Eval Interval	27 DP-1	33 DP-1	33 DP-1	33 DP-1	42 DP-1
Days After Emergence	21 DE-1	27 DE-1	27 DE-1	27 DE-1	36 DE-1
ARM Action Codes					
Number of Decimals					
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	6	7	8
			9	10	11
4 HARNESS XTRA	3.2 pt/a	A 104	76.7*	0.0	100.0*
IMPACT	0.75 fl oz/a	C 302	80.0	0.0	100.0*
AATREX	1 pt/a	C 401	80.0	0.0	100.0
STATUS	3 oz/a	C 504	70.0	0.0	100.0
MSO ULTRA	1 % v/v	C			15.0
N-PAK - AMS	2.5 % v/v	C			0.0
	Mean =		76.7	0.0	100.0
					8.8
					0.0
5 HARNESS XTRA	3.2 pt/a	B 105	0.0*	0.0	35.0
IMPACT	1 fl oz/a	B 204	0.0*	0.0	30.0
MSO ULTRA	0.5 % v/v	B 305	0.0	0.0	30.0
N-PAK - AMS	2.5 % v/v	B 503	0.0	5.0	100.0
	Mean =		0.0	1.3	48.8
					32.5
					0.0
6 HALEX GT	3.6 pt/a	B 201	0.0	0.0	35.0
AATREX	1 pt/a	B 205	0.0*	0.0	40.0
ACTIVATOR 90 - NIS	0.25 % v/v	B 304	0.0	0.0	35.0
N-PAK - AMS	2.5 % v/v	B 501	0.0	0.0	25.0
	Mean =		0.0	0.0	33.8
					50.0
					0.0

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Pest Type	W Weed		W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	SIDSP		ERICA	SIDSP	ERICA	SIDSP	SIDSP
Pest Scientific Name	Sida spinosa		Conyza canadensis	Sida spinosa	Conyza canadensis	Sida spinosa	Sida spinosa
Pest Name	Prickly sida		Canada horseweed	Prickly sida	Canada horseweed	Prickly sida	Prickly sida
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn	Corn
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
Rating Date	Jul-9-2015	Jul-17-2015	Jul-17-2015	Jul-17-2015	Jul-29-2015	Jul-29-2015	Jul-29-2015
Rating Type	CONTRO	PHYTO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1	1
Crop Stage Majority		V10					
Assessed By	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN
Days After First/Last Applic.	42 9	50 17	50 17	50 17	62 29	62 29	62 29
Trt-Eval Interval	9 DA-C	17 DA-C	17 DA-C	17 DA-C	29 DA-C	29 DA-C	29 DA-C
Plant-Eval Interval	42 DP-1	50 DP-1	50 DP-1	50 DP-1	62 DP-1	62 DP-1	62 DP-1
Days After Emergence	36 DE-1	44 DE-1	44 DE-1	44 DE-1	56 DE-1	56 DE-1	56 DE-1
ARM Action Codes							
Number of Decimals							
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	12	13	14	15	16
1 Untreated Check		101	0.0	0.0	0.0	0.0	0.0
		202	0.0	0.0	0.0	0.0	0.0
		303	0.0	0.0	0.0	0.0	0.0
		405	0.0	0.0	0.0	0.0	0.0
		Mean =	0.0	0.0	0.0	0.0	0.0
2 HARNESS XTRA	3.2 pt/a A	102	80.0*	0.0	100.0	85.0*	100.0
IMPACT	0.75 fl oz/a C	301	75.0	0.0	100.0	85.0*	100.0
AATREX	1 pt/a C	402	75.0	0.0	100.0	80.0	100.0
MSO ULTRA	1 % v/v C	404	90.0	0.0	100.0	90.0	100.0
N-PAK - AMS	2.5 % v/v C						
		Mean =	80.0	0.0	100.0	85.0	100.0
3 HARNESS XTRA	3.2 pt/a A	103	80.0	0.0	90.0	100.0*	100.0
IMPACT	0.75 fl oz/a C	203	100.0	0.0	100.0	100.0	100.0
AATREX	1 pt/a C	403	90.0	0.0	100.0	100.0*	100.0
ROUNDUP POWERMAX	32 fl oz/a C	502	95.0	0.0	100.0	100.0	100.0
MSO ULTRA	0.5 % v/v C						
N-PAK - AMS	2.5 % v/v C						
		Mean =	91.3	0.0	97.5	100.0	100.0



# Purdue University Weed Science

## Showcase Impact Programs in Corn

Trial ID: 15S-CORT-NTC-18  
 Protocol ID: 15CO4H 028  
 Project ID: 15C04H028XBIN505

Location: Cortland      Trial Year: 2015  
 Investigator: Dr. Bill Johnson  
 Study Director: Joey Heneghan  
 Sponsor Contact: AMVAC - Joseph Argentine

Pest Type	W Weed		W Weed	W Weed	W Weed	W Weed		
Pest Code	SIDSP		ERICA	SIDSP	ERICA	SIDSP		
Pest Scientific Name	Sida spinosa		Conyza canadensis	Sida spinosa	Conyza canadensis	Sida spinosa		
Pest Name	Prickly sida		Canada horseweed	Prickly sida	Canada horseweed	Prickly sida		
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX		
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR		
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays		
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	Jul-9-2015	Jul-17-2015	Jul-17-2015	Jul-17-2015	Jul-29-2015	Jul-29-2015		
Rating Type	CONTRO	PHYTO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1		
Crop Stage Majority		V10						
Assessed By	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN		
Days After First/Last Applic.	42 9	50 17	50 17	50 17	62 29	62 29		
Trt-Eval Interval	9 DA-C	17 DA-C	17 DA-C	17 DA-C	29 DA-C	29 DA-C		
Plant-Eval Interval	42 DP-1	50 DP-1	50 DP-1	50 DP-1	62 DP-1	62 DP-1		
Days After Emergence	36 DE-1	44 DE-1	44 DE-1	44 DE-1	56 DE-1	56 DE-1		
ARM Action Codes								
Number of Decimals								
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code Plot	12	13	14	15	16	17
4 HARNESS XTRA	3.2 pt/a	A 104	100.0	0.0	100.0	100.0*	100.0	100.0
IMPACT	0.75 fl oz/a	C 302	100.0	0.0	100.0	100.0*	100.0	95.0
AATREX	1 pt/a	C 401	100.0	0.0	100.0	100.0	100.0	100.0
STATUS	3 oz/a	C 504	90.0	0.0	100.0	100.0	100.0	100.0
MSO ULTRA	1 % v/v	C						
N-PAK - AMS	2.5 % v/v	C						
		Mean =	97.5	0.0	100.0	100.0	100.0	98.8
5 HARNESS XTRA	3.2 pt/a	B 105	100.0	.	.	.	100.0	85.0
IMPACT	1 fl oz/a	B 204	60.0	.	.	.	100.0	90.0
MSO ULTRA	0.5 % v/v	B 305	85.0	.	.	.	100.0	70.0
N-PAK - AMS	2.5 % v/v	B 503	95.0	.	.	.	100.0	90.0
		Mean =	85.0	.	.	.	100.0	83.8
6 HALEX GT	3.6 pt/a	B 201	70.0	.	.	.	100.0	100.0
AATREX	1 pt/a	B 205	60.0	.	.	.	100.0	90.0
ACTIVATOR 90 - NIS	0.25 % v/v	B 304	80.0	.	.	.	100.0	95.0
N-PAK - AMS	2.5 % v/v	B 501	95.0	.	.	.	100.0	95.0
		Mean =	76.3	.	.	.	100.0	95.0

# Purdue University Weed Science

## Showcase Impact Programs in Corn

Trial ID: 15S-CORT-NTC-18  
 Protocol ID: 15CO4H 028  
 Project ID: 15C04H028XBIN505

Location: Cortland      Trial Year: 2015  
 Investigator: Dr. Bill Johnson  
 Study Director: Joey Heneghan  
 Sponsor Contact: AMVAC - Joseph Argentine

Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	18	19	20	21	22
1 Untreated Check		101	0.0	0.0	20.10	13.27	128.4
		202	0.0	0.0	18.81	12.78	120.8
		303	0.0	0.0	22.63	13.37	144.3
		405	0.0	0.0	26.17	13.15	167.4
		Mean =	0.0	0.0	21.93	13.14	140.2
2 HARNESS XTRA	3.2 pt/a A	102	100.0	90.0	20.48	13.54	130.4
IMPACT	0.75 fl oz/a C	301	100.0	90.0	23.22	13.95	147.1
AATREX	1 pt/a C	402	100.0	85.0	27.46	13.34	175.2
MSO ULTRA	1 % v/v C	404	100.0	90.0	26.55	13.55	169.0
N-PAK - AMS	2.5 % v/v C						
		Mean =	100.0	88.8	24.42	13.60	155.4
3 HARNESS XTRA	3.2 pt/a A	103	100.0	95.0	21.39	13.07	136.9
IMPACT	0.75 fl oz/a C	203	100.0	95.0	22.89	13.34	146.1
AATREX	1 pt/a C	403	100.0	100.0	26.71	13.48	170.2
ROUNDUP POWERMAX	32 fl oz/a C	502	100.0	100.0	25.10	13.95	159.0
MSO ULTRA	0.5 % v/v C						
N-PAK - AMS	2.5 % v/v C						
		Mean =	100.0	97.5	24.02	13.46	153.1

# Purdue University Weed Science

## Showcase Impact Programs in Corn

Trial ID: 15S-CORT-NTC-18      Location: Cortland      Trial Year: 2015  
 Protocol ID: 15CO4H 028      Investigator: Dr. Bill Johnson  
 Project ID: 15C04H028XBIN505      Study Director: Joey Heneghan  
 Sponsor Contact: AMVAC - Joseph Argentine

Pest Type	W Weed	W Weed			
Pest Code	ERICA	SIDSP			
Pest Scientific Name	Conyza canadensis	Sida spinosa			
Pest Name	Canada horseweed	Prickly sida			
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn	Corn
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
Rating Date	Aug-13-2015	Aug-13-2015	Oct-22-2015	Oct-22-2015	Oct-22-2015
Rating Type	CONTRO	CONTRO	YIELD	MOICON	YIELD
Rating Unit	%	%	lb/plot	%	BU
Number of Subsamples	1	1	1	1	1
Crop Stage Majority					
Assessed By	HENEZHAN	HENEZHAN	IKLEY/HENEG	IKLEY/HENEG	IKLEY/HENEG
Days After First/Last Applic.	77 44	77 44	147 114	147 114	147 114
Trt-Eval Interval	44 DA-C	44 DA-C			
Plant-Eval Interval	77 DP-1	77 DP-1	147 DP-1	147 DP-1	147 DP-1
Days After Emergence	71 DE-1	71 DE-1	141 DE-1	141 DE-1	141 DE-1
ARM Action Codes					TY1
Number of Decimals			2	2	1
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	18	19	20
4 HARNESS XTRA	3.2 pt/a	A 104	100.0	95.0	22.25
IMPACT	0.75 fl oz/a	C 302	100.0	95.0	23.11
AATREX	1 pt/a	C 401	100.0	90.0	27.57
STATUS	3 oz/a	C 504	100.0	90.0	21.77
MSO ULTRA	1 % v/v	C			13.55
N-PAK - AMS	2.5 % v/v	C			138.6
	Mean =		100.0	92.5	23.67
5 HARNESS XTRA	3.2 pt/a	B 105	100.0	95.0	21.87
IMPACT	1 fl oz/a	B 204	100.0	80.0	20.53
MSO ULTRA	0.5 % v/v	B 305	100.0	85.0	22.25
N-PAK - AMS	2.5 % v/v	B 503	100.0	90.0	21.66
	Mean =		100.0	87.5	21.58
6 HALEX GT	3.6 pt/a	B 201	100.0	95.0	19.40
AATREX	1 pt/a	B 205	80.0	85.0	22.04
ACTIVATOR 90 - NIS	0.25 % v/v	B 304	100.0	95.0	23.38
N-PAK - AMS	2.5 % v/v	B 501	100.0	95.0	24.40
	Mean =		95.0	92.5	22.30
					13.08
					124.2
					13.53
					140.3
					12.88
					150.0
					13.60
					155.2
					142.4

# Purdue University Weed Science

## Showcase Impact Programs in Corn

Trial ID: 15S-CORT-NTC-18      Location: Cortland      Trial Year: 2015  
 Protocol ID: 15CO4H 028      Investigator: Dr. Bill Johnson  
 Project ID: 15CO4H028XBIN505      Study Director: Joey Heneghan  
 Sponsor Contact: AMVAC - Joseph Argentine

**Pest Type**  
 W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop

**Pest Code**  
 ERICA, Conyza canadensis, = US  
 SIDSP, Sida spinosa, = US

**Crop Code**  
 ZEAMX, BCOR, Zea mays, = US

**Part Rated**

PLOT = plot

**Rating Type**

CONTRO = control / burndown or knockdown

YIELD = yield

MOICON = moisture content

**Rating Unit**

% = percent

Ib/plot = pounds per plot

BU = bushel

**Plant-Eval Interval**

- 6 DP-1 = 1 ZEAMX May-28-2015
- 13 DP-1 = 1 ZEAMX May-28-2015
- 27 DP-1 = 1 ZEAMX May-28-2015
- 33 DP-1 = 1 ZEAMX May-28-2015
- 42 DP-1 = 1 ZEAMX May-28-2015
- 50 DP-1 = 1 ZEAMX May-28-2015
- 62 DP-1 = 1 ZEAMX May-28-2015
- 77 DP-1 = 1 ZEAMX May-28-2015
- 147 DP-1 = 1 ZEAMX May-28-2015

**ARM Action Codes**

TY1 = 6.222857\*[20]\*(100-[21])/84.5

Pest Type			W Weed			W Weed			W Weed			W Weed
Pest Code			ERICA			ERICA			ERICA			SIDSP
Pest Scientific Name			Conyza canadensis			Conyza canadensis			Conyza canadensis			Sida spinosa
Pest Name			Canada horseweed			Canada horseweed			Canada horseweed			Prickly sida
Crop Code	ZEAMX		ZEAMX		ZEAMX		ZEAMX		ZEAMX		ZEAMX	
BBCH Scale	BCOR		BCOR		BCOR		BCOR		BCOR		BCOR	
Crop Scientific Name	Zea mays		Zea mays		Zea mays		Zea mays		Zea mays		Zea mays	
Crop Name	Corn		Corn		Corn		Corn		Corn		Corn	
Part Rated	PLOT -		PLOT -		PLOT -		PLOT -		PLOT -		PLOT -	
Rating Date	Jun-3-2015		Jun-3-2015		Jun-10-2015		Jun-10-2015		Jun-24-2015		Jun-24-2015	
Rating Type	PHYTO		CONTRO		PHYTO		CONTRO		CONTRO		CONTRO	
Rating Unit	%		%		%		%		%		%	
Number of Subsamples	1		1		1		1		1		1	
Crop Stage Majority	V1		V1		V1		V1		V1		V1	
Assessed By	HENEGHAN		HENEGHAN		HENEGHAN		HENEGHAN		HENEGHAN		HENEGHAN	
Days After First/Last Applic.	6 6		6 6		13 13		13 13		27 27		27 27	
Trt-Eval Interval	6 DA-A		6 DA-A		13 DA-A		13 DA-A		0 DA-B		0 DA-B	
Plant-Eval Interval	6 DP-1		6 DP-1		13 DP-1		13 DP-1		27 DP-1		27 DP-1	
Days After Emergence	0 DE-1		0 DE-1		7 DE-1		7 DE-1		21 DE-1		21 DE-1	
ARM Action Codes												
Number of Decimals												
Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6			
		Rate Unit										
1	Untreated Check			0.0 a	0.0 b	0.0 a	0.0 b	0.0 b	0.0 c			
2	HARNESS XTRA	3.2 pt/a A		0.0 a	95.0 a	0.0 a	92.5 a	93.4 a	66.7 b			
	IMPACT	0.75 fl oz/a C										
	AATREX	1 pt/a C										
	MSO ULTRA	1 % v/v C										
	N-PAK - AMS	2.5 % v/v C										
3	HARNESS XTRA	3.2 pt/a A		0.0 a	95.0 a	0.0 a	91.3 a	88.8 a	80.0 a			
	IMPACT	0.75 fl oz/a C										
	AATREX	1 pt/a C										
	ROUNDUP POWERMAX	32 fl oz/a C										
	MSO ULTRA	0.5 % v/v C										
	N-PAK - AMS	2.5 % v/v C										
4	HARNESS XTRA	3.2 pt/a A		0.0 a	100.0 a	0.0 a	93.8 a	88.8 a	76.7 ab			
	IMPACT	0.75 fl oz/a C										
	AATREX	1 pt/a C										
	STATUS	3 oz/a C										
	MSO ULTRA	1 % v/v C										
	N-PAK - AMS	2.5 % v/v C										

# Purdue University Weed Science

## Showcase Impact Programs in Corn

Trial ID: 15S-CORT-NTC-18  
 Protocol ID: 15CO4H 028  
 Project ID: 15C04H028XBIN505

Location: Cortland      Trial Year: 2015  
 Investigator: Dr. Bill Johnson  
 Study Director: Joey Heneghan  
 Sponsor Contact: AMVAC - Joseph Argentine

		W Weed		W Weed	W Weed	W Weed
Pest Type		ERICA		ERICA	ERICA	SIDSP
Pest Code		ERICA		ERICA	ERICA	SIDSP
Pest Scientific Name		Conyza canadensis		Conyza canadensis	Conyza canadensis	Sida spinosa
Pest Name		Canada horseweed		Canada horseweed	Canada horseweed	Prickly sida
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
Rating Date	Jun-3-2015	Jun-3-2015	Jun-10-2015	Jun-10-2015	Jun-24-2015	Jun-24-2015
Rating Type	PHYTO	PHYTO	PHYTO	PHYTO	PHYTO	PHYTO
Rating Unit	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1
Crop Stage Majority	VE	VE	V1	V1	V1	V1
Assessed By	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN
Days After First/Last Applic.	6 6	6 6	13 13	13 13	27 27	27 27
Trt-Eval Interval	6 DA-A	6 DA-A	13 DA-A	13 DA-A	0 DA-B	0 DA-B
Plant-Eval Interval	6 DP-1	6 DP-1	13 DP-1	13 DP-1	27 DP-1	27 DP-1
Days After Emergence	0 DE-1	0 DE-1	7 DE-1	7 DE-1	21 DE-1	21 DE-1
ARM Action Codes						
Number of Decimals						
Trt Treatment	Rate	Appl				
No. Name	Rate Unit Code		1	2	3	4
5 HARNESS XTRA	3.2 pt/a B		0.0 a	0.0 b	0.0 a	0.0 b
IMPACT	1 fl oz/a B					
MISO ULTRA	0.5 % v/v B					
N-PAK - AMS	2.5 % v/v B					
6 HALEX GT	3.6 pt/a B		0.0 a	0.0 b	0.0 a	0.0 b
AATREX	1 pt/a B					
ACTIVATOR 90 - NIS	0.25 % v/v B					
N-PAK - AMS	2.5 % v/v B					
LSD P=.05	0.00		7.78	0.00	3.89	9.80
Standard Deviation	0.00		5.16	0.00	2.58	6.36
CV	0.0		10.68	0.0	5.58	14.0
Bartlett's X2	0.0		0.0	0.0	1.408	1.214
P(Bartlett's X2)	.		.	.	0.495	0.545
Skewness	.		0.034	.	0.0076	-0.0508
Kurtosis	.		-2.1473*	.	-2.1792*	-2.1432*
Replicate F	0.000		2.500	0.000	0.625	1.627
Replicate Prob(F)	1.0000		0.0991	1.0000	0.6098	0.2351
Treatment F	0.000		421.000	0.000	1540.500	239.633
Treatment Prob(F)	1.0000		0.0001	1.0000	0.0001	0.0001

# Purdue University Weed Science

## Showcase Impact Programs in Corn

Trial ID: 15S-CORT-NTC-18  
 Protocol ID: 15CO4H 028  
 Project ID: 15C04H028XBIN505

Location: Cortland      Trial Year: 2015  
 Investigator: Dr. Bill Johnson  
 Study Director: Joey Heneghan  
 Sponsor Contact: AMVAC - Joseph Argentine

Tri Treatment No. Name	Rate Rate Unit	Appl Code	7	8	9	10	11	12
1 Untreated Check			0.0 a	0.0 c	0.0 c	0.0 a	0.0 b	0.0 b
2 HARNESS XTRA	3.2 pt/a A		0.0 a	100.0 a	0.0 c	0.0 a	81.3 a	80.0 a
IMPACT	0.75 fl oz/a C							
AATREX	1 pt/a C							
MSO ULTRA	1 % v/v C							
N-PAK - AMS	2.5 % v/v C							
3 HARNESS XTRA	3.2 pt/a A		0.0 a	100.0 a	12.5 c	0.0 a	87.5 a	91.3 a
IMPACT	0.75 fl oz/a C							
AATREX	1 pt/a C							
ROUNDUP POWERMAX	32 fl oz/a C							
MSO ULTRA	0.5 % v/v C							
N-PAK - AMS	2.5 % v/v C							
4 HARNESS XTRA	3.2 pt/a A		0.0 a	100.0 a	8.8 c	0.0 a	90.0 a	97.5 a
IMPACT	0.75 fl oz/a C							
AATREX	1 pt/a C							
STATUS	3 oz/a C							
MSO ULTRA	1 % v/v C							
N-PAK - AMS	2.5 % v/v C							

# Purdue University Weed Science

## Showcase Impact Programs in Corn

Trial ID: 15S-CORT-NTC-18  
 Protocol ID: 15CO4H 028  
 Project ID: 15C04H028XBIN505

Location: Cortland      Trial Year: 2015  
 Investigator: Dr. Bill Johnson  
 Study Director: Joey Heneghan  
 Sponsor Contact: AMVAC - Joseph Argentine

Pest Type		W Weed	W Weed		W Weed	W Weed		
Pest Code		ERICA	SIDSP		ERICA	SIDSP		
Pest Scientific Name		Conyza canadensis>	Sida spinosa		Conyza canadensis>	Sida spinosa		
Pest Name		Canada horseweed>	Prickly sida		Canada horseweed>	Prickly sida		
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX		
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR		
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays		
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	Jun-30-2015	Jun-30-2015	Jun-30-2015	Jul-9-2015	Jul-9-2015	Jul-9-2015		
Rating Type	PHYTO	CONTRO	CONTRO	PHYTO	CONTRO	CONTRO		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1		
Crop Stage Majority	V7			V8				
Assessed By	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN		
Days After First/Last Applic.	33 6	33 6	33 6	42 9	42 9	42 9		
Trt-Eval Interval	6 DA-B	6 DA-B	6 DA-B	9 DA-C	9 DA-C	9 DA-C		
Plant-Eval Interval	33 DP-1	33 DP-1	33 DP-1	42 DP-1	42 DP-1	42 DP-1		
Days After Emergence	27 DE-1	27 DE-1	27 DE-1	36 DE-1	36 DE-1	36 DE-1		
ARM Action Codes								
Number of Decimals								
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code	7	8	9	10	11	12
5 HARNESS XTRA	3.2 pt/a B		1.3 a	48.8 b	32.5 b	0.0 a	75.0 a	85.0 a
IMPACT	1 fl oz/a B							
MSO ULTRA	0.5 % v/v B							
N-PAK - AMS	2.5 % v/v B							
6 HALEX GT	3.6 pt/a B		0.0 a	33.8 b	50.0 a	0.0 a	76.3 a	76.3 a
AATREX	1 pt/a B							
ACTIVATOR 90 - NIS	0.25 % v/v B							
N-PAK - AMS	2.5 % v/v B							
LSD P=.05	1.54		1.54	32.78	12.30	0.00	28.42	16.49
Standard Deviation	1.02		1.02	20.10	8.16	0.00	18.86	10.87
CV	489.9		489.9	31.54	47.19	0.0	27.61	15.17
Bartlett's X2	0.0		0.0	6.039	0.481	0.0	2.871	4.776
P(Bartlett's X2)	.		.	0.014*	0.923	.	0.58	0.311
Skewness	4.899*		4.899*	0.3068	0.8989	.	-1.0644*	-1.4082*
Kurtosis	24.0*		24.0*	-1.6187	-0.2262	.	-0.1265	0.5871
Replicate F	1.000		1.000	0.333	1.100	0.000	0.867	1.152
Replicate Prob(F)	0.4199		0.4199	0.8018	0.3797	1.0000	0.4800	0.3627
Treatment F	1.000		1.000	18.074	23.966	0.000	12.995	43.707
Treatment Prob(F)	0.4509		0.4509	0.0004	0.0001	1.0000	0.0001	0.0001

# Purdue University Weed Science

## Showcase Impact Programs in Corn

Trial ID: 15S-CORT-NTC-18  
 Protocol ID: 15CO4H 028  
 Project ID: 15C04H028XBIN505

Location: Cortland      Trial Year: 2015  
 Investigator: Dr. Bill Johnson  
 Study Director: Joey Heneghan  
 Sponsor Contact: AMVAC - Joseph Argentine

W Weed	W Weed	W Weed	W Weed	W Weed		
ERICA	SIDSP	ERICA	SIDSP	ERICA		
Conyza canadensis>	Sida spinosa	Conyza canadensis>	Sida spinosa	Conyza canadensis>		
Canada horseweed>	Prickly sida	Canada horseweed>	Prickly sida	Canada horseweed>		
ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX		
BCOR	BCOR	BCOR	BCOR	BCOR		
Zea mays	Zea mays	Zea mays	Zea mays	Zea mays		
Corn	Corn	Corn	Corn	Corn		
PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Jul-17-2015	Jul-17-2015	Jul-17-2015	Jul-29-2015	Jul-29-2015		
PHYTO	PHYTO	PHYTO	PHYTO	PHYTO		
CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
%	%	%	%	%		
1	1	1	1	1		
V10	V10	V10	V10	V10		
HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN		
50 17	50 17	50 17	62 29	62 29		
17 DA-C	17 DA-C	17 DA-C	29 DA-C	29 DA-C		
50 DP-1	50 DP-1	50 DP-1	62 DP-1	62 DP-1		
44 DE-1	44 DE-1	44 DE-1	56 DE-1	56 DE-1		
ARM Action Codes	ARM Action Codes	ARM Action Codes	ARM Action Codes	ARM Action Codes		
Number of Decimals	Number of Decimals	Number of Decimals	Number of Decimals	Number of Decimals		
13	14	15	16	17		
18	18	18	18	18		
1 Untreated Check	0.0 a	0.0 b	0.0 c	0.0 b	0.0 c	0.0 b
2 HARNESS XTRA	0.0 a	100.0 a	85.0 b	100.0 a	85.0 ab	100.0 a
IMPACT						
AATREX						
MSO ULTRA						
N-PAK - AMS						
3 HARNESS XTRA	0.0 a	97.5 a	100.0 a	100.0 a	96.3 ab	100.0 a
IMPACT						
AATREX						
ROUNDUP POWERMAX						
MSO ULTRA						
N-PAK - AMS						
4 HARNESS XTRA	0.0 a	100.0 a	100.0 a	100.0 a	98.8 a	100.0 a
IMPACT						
AATREX						
STATUS						
MSO ULTRA						
N-PAK - AMS						



# Purdue University Weed Science

## Showcase Impact Programs in Corn

Trial ID: 15S-CORT-NTC-18  
 Protocol ID: 15CO4H 028  
 Project ID: 15C04H028XBIN505

Location: Cortland      Trial Year: 2015  
 Investigator: Dr. Bill Johnson  
 Study Director: Joey Heneghan  
 Sponsor Contact: AMVAC - Joseph Argentine

		W Weed ERICA	W Weed SIDSP	W Weed ERICA	W Weed SIDSP	W Weed ERICA
Pest Type		ERICA	SIDSP	ERICA	SIDSP	ERICA
Pest Code		ERICA	SIDSP	ERICA	SIDSP	ERICA
Pest Scientific Name		Conyza canadensis	Sida spinosa	Conyza canadensis	Sida spinosa	Conyza canadensis
Pest Name		Canada horseweed	Prickly sida	Canada horseweed	Prickly sida	Canada horseweed
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
Rating Date	Jul-17-2015	Jul-17-2015	Jul-17-2015	Jul-29-2015	Jul-29-2015	Aug-13-2015
Rating Type	PHYTO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1
Crop Stage Majority	V10					
Assessed By	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN
Days After First/Last Applic.	50 17	50 17	50 17	62 29	62 29	77 44
Trt-Eval Interval	17 DA-C	17 DA-C	17 DA-C	29 DA-C	29 DA-C	44 DA-C
Plant-Eval Interval	50 DP-1	50 DP-1	50 DP-1	62 DP-1	62 DP-1	77 DP-1
Days After Emergence	44 DE-1	44 DE-1	44 DE-1	56 DE-1	56 DE-1	71 DE-1
ARM Action Codes						
Number of Decimals						
Trt Treatment	Rate	Rate	Rate	Rate	Rate	Rate
No. Name	Unit Code	Unit Code	Unit Code	Unit Code	Unit Code	Unit Code
	13	14	15	16	17	18
5 HARNESS XTRA	3.2 pt/a B			100.0 a	83.8 b	100.0 a
IMPACT	1 fl oz/a B					
MSO ULTRA	0.5 % v/v B					
N-PAK - AMS	2.5 % v/v B					
6 HALEX GT	3.6 pt/a B			100.0 a	95.0 ab	95.0 a
AATREX	1 pt/a B					
ACTIVATOR 90 - NIS	0.25 % v/v B					
N-PAK - AMS	2.5 % v/v B					
LSD P=.05	0.00	4.00	7.96	0.00	10.26	6.15
Standard Deviation	0.00	2.50	3.54	0.00	6.81	4.08
CV	0.0	3.36	4.96	0.0	8.9	4.95
Bartlett's X2	0.0	0.0	0.0	0.0	5.911	0.0
P(Bartlett's X2)	.	.	.	.	0.206	.
Skewness	.	-1.2666*	-0.4302	-1.9104*	-1.7052*	-1.8671*
Kurtosis	.	-0.4529	-2.2459	1.7922	1.3103	1.6809
Replicate F	0.000	1.000	0.333	0.000	0.802	1.000
Replicate Prob(F)	1.0000	0.4363	0.8045	1.0000	0.5119	0.4199
Treatment F	0.000	1574.333	738.000	0.000	124.430	393.000
Treatment Prob(F)	1.0000	0.0001	0.0001	1.0000	0.0001	0.0001

# Purdue University Weed Science

## Showcase Impact Programs in Corn

Trial ID: 15S-CORT-NTC-18  
 Protocol ID: 15CO4H 028  
 Project ID: 15C04H028XBIN505

Location: Cortland      Trial Year: 2015  
 Investigator: Dr. Bill Johnson  
 Study Director: Joey Heneghan  
 Sponsor Contact: AMVAC - Joseph Argentine

Pest Type	W Weed			
Pest Code	SIDSP			
Pest Scientific Name	Sida spinosa			
Pest Name	Prickly sida			
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -
Rating Date	Aug-13-2015	Oct-22-2015	Oct-22-2015	Oct-22-2015
Rating Type	CONTRO	YIELD	MOICON	YIELD
Rating Unit	%	lb/plot	%	BU
Number of Subsamples	1	1	1	1
Crop Stage Majority				
Assessed By	HENEGHAN	IKLEY/HENEG	IKLEY/HENEG	IKLEY/HENEG
Days After First/Last Applic.	77 44	147 114	147 114	147 114
Trt-Eval Interval	44 DA-C			
Plant-Eval Interval	77 DP-1	147 DP-1	147 DP-1	147 DP-1
Days After Emergence	71 DE-1	141 DE-1	141 DE-1	141 DE-1
ARM Action Codes				TY1
Number of Decimals		2	2	1
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	19	20
1 Untreated Check	0.0 c		21.93 a	13.14 a
2 HARNESX XTRA	3.2 pt/a A		88.8 b	24.42 a
IMPACT	0.75 fl oz/a C			13.60 a
AATREX	1 pt/a C			155.4 a
MSO ULTRA	1 % v/v C			
N-PAK - AMS	2.5 % v/v C			
3 HARNESX XTRA	3.2 pt/a A		97.5 a	24.02 a
IMPACT	0.75 fl oz/a C			13.46 a
AATREX	1 pt/a C			153.1 a
ROUNDUP POWERMAX	32 fl oz/a C			
MSO ULTRA	0.5 % v/v C			
N-PAK - AMS	2.5 % v/v C			
4 HARNESX XTRA	3.2 pt/a A		92.5 ab	23.67 a
IMPACT	0.75 fl oz/a C			13.55 a
AATREX	1 pt/a C			150.7 a
STATUS	3 oz/a C			
MSO ULTRA	1 % v/v C			
N-PAK - AMS	2.5 % v/v C			

# Purdue University Weed Science

## Showcase Impact Programs in Corn

Trial ID: 15S-CORT-NTC-18  
 Protocol ID: 15CO4H 028  
 Project ID: 15C04H028XBIN505

Location: Cortland      Trial Year: 2015  
 Investigator: Dr. Bill Johnson  
 Study Director: Joey Heneghan  
 Sponsor Contact: AMVAC - Joseph Argentine

Pest Type	W Weed			
Pest Code	SIDSP			
Pest Scientific Name	Sida spinosa			
Pest Name	Prickly sida			
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -
Rating Date	Aug-13-2015	Oct-22-2015	Oct-22-2015	Oct-22-2015
Rating Type	CONTRO	YIELD	MOICON	YIELD
Rating Unit	%	lb/plot	%	BU
Number of Subsamples	1	1	1	1
Crop Stage Majority				
Assessed By	HENEGHAN	IKLEY/HENEG	IKLEY/HENEG	IKLEY/HENEG
Days After First/Last Applic.	77 44	147 114	147 114	147 114
Trt-Eval Interval	44 DA-C			
Plant-Eval Interval	77 DP-1	147 DP-1	147 DP-1	147 DP-1
Days After Emergence	71 DE-1	141 DE-1	141 DE-1	141 DE-1
ARM Action Codes				TY1
Number of Decimals		2	2	1
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	19	20
5 HARNESS XTRA	3.2 pt/a B		87.5 b	21.58 a
IMPACT	1 fl oz/a B			13.47 a
MISO ULTRA	0.5 % v/v B			137.5 a
N-PAK - AMS	2.5 % v/v B			
6 HALEX GT	3.6 pt/a B		92.5 ab	22.30 a
AATREX	1 pt/a B			13.27 a
ACTIVATOR 90 - NIS	0.25 % v/v B			142.4 a
N-PAK - AMS	2.5 % v/v B			
LSD P=.05	5.60	2.661	0.430	16.80
Standard Deviation	3.72	1.766	0.285	11.15
CV	4.86	7.68	2.13	7.61
Bartlett's X2	3.876	5.094	1.619	4.725
P(Bartlett's X2)	0.423	0.405	0.899	0.45
Skewness	-1.8348*	0.4263	-0.1722	0.4645
Kurtosis	1.631	-0.6457	-0.2911	-0.6365
Replicate F	1.482	7.356	1.540	7.586
Replicate Prob(F)	0.2595	0.0029	0.2453	0.0026
Treatment F	409.643	1.842	1.457	1.784
Treatment Prob(F)	0.0001	0.1650	0.2612	0.1767

# Purdue University Weed Science

## Showcase Impact Programs in Corn

Trial ID: 15S-CORT-NTC-18      Location: Cortland      Trial Year: 2015  
 Protocol ID: 15CO4H 028      Investigator: Dr. Bill Johnson  
 Project ID: 15C04H028XBIN505      Study Director: Joey Heneghan  
 Sponsor Contact: AMVAC - Joseph Argentine

### Pest Type

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

### Pest Code

ERICA, Conyza canadensis, = US

SIDSP, Sida spinosa, = US

### Crop Code

ZEAMX, BCOR, Zea mays, = US

### Part Rated

PLOT = plot

### Rating Type

CONTRO = control / burndown or knockdown

YIELD = yield

MOICON = moisture content

### Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

### Plant-Eval Interval

6 DP-1 = 1 ZEAMX May-28-2015

13 DP-1 = 1 ZEAMX May-28-2015

27 DP-1 = 1 ZEAMX May-28-2015

33 DP-1 = 1 ZEAMX May-28-2015

42 DP-1 = 1 ZEAMX May-28-2015

50 DP-1 = 1 ZEAMX May-28-2015

62 DP-1 = 1 ZEAMX May-28-2015

77 DP-1 = 1 ZEAMX May-28-2015

147 DP-1 = 1 ZEAMX May-28-2015

### ARM Action Codes

TY1 = 6.222857\*[20]\*(100-[21])/84.5