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Efficacy of GWN-3404 and GWN-3041 and Yukon in Combination with Glyphosate for Broadleaf Weed Control in Corn.

Trial ID: 11S-THP-CTC-05 Protocol ID: 11S-THP-CTC-105
 Location: Throckmorton Study Director: White/Marquardt
 Project ID: Investigator: Dr. Bill Johnson
 Sponsor Contact: Gowan - Nick Vandervort

General Trial Information

Study Director: White/Marquardt **Title:** Research Associate
Investigator: Dr. Bill Johnson **Title:** Professor

Discipline: H herbicide
Trial Status: E established
Initiation Date: 4-9-2011

Trial Location

City: Lafayette
State/Prov.: IN
Postal Code: 47909
Country: USA

Personnel

Study Director: White/Marquardt **Title:** Research Associate

Affiliation: Purdue University
Address: 915 W State Street
Location: West Lafayette, IN, USA

Postal Code: 47907 **E-mail:** mdwhite@purdue.edu
Phone No.: 765-494-0891

Investigator: Dr. Bill Johnson **Title:** Professor

Affiliation: Purdue University
Address: 915 W State Street
Location: West Lafayette, IN, USA

Postal Code: 47907 **E-mail:** wqi@purdue.edu
Phone No.: 765-494-4656 **Mobile No.:** 765-404-9801

Cooperator/Landowner

Cooperator: Throckmorton Purdue Ag Center **Role:** Purdue Ag Center

Organization: Purdue University
Address 1: 8343 US 231 S

City: Lafayette **Phone No.:** 765-538-3422
State/Prov.: IN **Fax No.:** 765-538-3423
Postal Code: 47909 **E-mail:** jayyoung@purdue.edu
Country: USA United States

Crop Description

Crop 1: ZEAMD Zea mays indentata Dent corn

Variety: Pioneer 33W84
BBCH Scale: BCOR

Description: HXX LL RR2
Planting Date: 5-12-2011

Planting Method: PLANTD planted
Depth, Unit: 1.5 IN

Rate, Unit: 34000 S/A

Row Spacing, Unit: 30 IN

Soil Moisture: MOIST

Soil Temperature, Unit: 70.5 F
Emergence Date: 5-22-2011

Pest Description

Pest 1 Type: W **Code:** SETFA *Setaria faberi*
Common Name: Giant foxtail

Pest 2 Type: W **Code:** AMBTR *Ambrosia trifida*
Common Name: Giant ragweed

Pest 3 Type: W **Code:** ABUTH *Abutilon theophrasti*
Common Name: Velvetleaf

Pest 4 Type: W **Code:** AMARE *Amaranthus retroflexus*
Common Name: Redroot pigweed

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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 FT ²	Tillage Type: CONTIL conventional-till
Replications: 4	Study Design: RACOB Randomized Complete Block (RCB)
	Untreated Arrangement: INCLUDED single control randomized in each block

Soil Description	
Description Name: TPAC - Field 4B	
% OM: 2.9	Texture: SIL silt loam
pH: 6.2	Soil Name: Toronto-Millbrook
CEC: 13.3	

Application Description	
	A
Application Date:	6-2-2011
Time of Day:	8:15AM
Application Method:	SPRAY
Application Timing:	EAPOCR
Application Placement:	FOLIAR
Applied By:	MW
Air Temperature, Unit:	67 F
% Relative Humidity:	68.5
Wind Velocity, Unit:	1 MPH
Dew Presence (Y/N):	Y yes
Soil Temperature, Unit:	67 F
Soil Moisture:	SLIWET
% Cloud Cover:	40

Crop Stage At Each Application	
	A
Crop 1 Code, BBCH Scale:	ZEAMD BCOR

Pest Stage At Each Application	
	A
Pest 1 Code, Type, Scale:	SETFA W
Height, Unit:	2.5 IN
Height Minimum, Maximum:	1 4
Density, Unit:	17 YD2
Pest 2 Code, Type, Scale:	AMBTR W
Height, Unit:	3.5 IN
Height Minimum, Maximum:	1 6
Density, Unit:	23 YD2
Pest 3 Code, Type, Scale:	ABUTH W
Height, Unit:	1.5 IN
Height Minimum, Maximum:	1 2
Density, Unit:	7 YD2
Pest 4 Code, Type, Scale:	AMARE W
Height, Unit:	1 IN
Density, Unit:	6 YD2

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Application Equipment

	A
Appl. Equipment:	CO2 FORD
Equipment Type:	SPTRMO
Nozzle Type:	FLAT FAN
Nozzle Size:	XR 100 02
Nozzle Spacing, Unit:	20 IN
Nozzles/Row:	6
Boom Length, Unit:	10 FT
Boom Height, Unit:	20 IN
Ground Speed, Unit:	2.1 MPH
Carrier:	MEIGS
Spray Volume, Unit:	20 gal/ac
Mix Size, Unit:	2.5 liters
Propellant:	CO2

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Efficacy of GWN-3404 and GWN-3041 and Yukon in Combination with Glyphosate for Broadleaf Weed Control in Corn.

Trial ID: 11S-THP-CTC-05

Protocol ID: 11S-THP-CTC-105

Location: Throckmorton
Project ID:Study Director: White/Marquardt
Investigator: Dr. Bill Johnson

Sponsor Contact: Gowan - Nick Vandervort

Pest Type			W Weed SETFA	W Weed AMBTR	W Weed ABUTH	W Weed CHEAL		W Weed SETFA
Pest Code			Setaria faberi	Ambrosia trifida	Abutilon theophrasti	Chenopodium album		Setaria faberi
Pest Scientific Name								
Pest Name			Giant foxtail	Giant ragweed	Velvetleaf	Common lambsquarters		Giant foxtail
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn
Rating Date	6-9-2011	6-16-2011	6-16-2011	6-16-2011	6-16-2011	6-16-2011	7-7-2011	7-7-2011
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit	%	%	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1	1	1
Crop Stage Majority	V4-V5	V5	V5	V5	V5	V5	V13	V13
Pest Stage Majority			1-12 IN	3-24 IN	1-6 IN	1-3 IN		36 IN
Pest Density, Unit			15 YD2	8 YD2	3 YD2	10.5 YD2		50 YD2
Assessed By	CB/AR	AR/WJ	AR/WJ	AR/WJ	AR/WJ	AR/WJ	RT/RH	RT/RH
Days After First/Last Applic.	7 7	14 14	14 14	14 14	14 14	14 14	35 35	35 35
Trt-Eval Interval	7 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	35 DA-A	35 DA-A
Plant-Eval Interval	28 DP-1	35 DP-1	35 DP-1	35 DP-1	35 DP-1	35 DP-1	56 DP-1	56 DP-1
Days After Emergence	18 DE-1	25 DE-1	25 DE-1	25 DE-1	25 DE-1	25 DE-1	46 DE-1	46 DE-1
Trt Treatment	Rate	Appl						
No. Name	Rate	Unit	Code					
1 Untreated Check								
	0.0 a			0.0 a	0.0 b	0.0 b	0.0 a	0.0 b
2 GWN-3404 (75 DF)	0.035 lb ai/a	A						
Roundup PowerMax 4.5 SL	0.77 lb ae/a	A						
NIS	0.125 % v/v	A						
AMS - Liquid	2.5 lb ai/a	A						
	0.5 a			0.8 a	95.0 a	87.5 a	100.0 a	83.3 a
3 GWN-3041 (75 DF)	0.0314 lb ai/a	A						
Roundup PowerMax 4.5 SL	0.77 lb ae/a	A						
NIS	0.125 % v/v	A						
AMS - Liquid	2.5 lb ai/a	A						
	2.0 a			0.0 a	87.5 a	88.8 a	98.8 a	97.5 a
4 Callisto (4.0 SC)	0.047 lb ai/a	A						
Roundup PowerMax 4.5 SL	0.77 lb ae/a	A						
NIS	0.125 % v/v	A						
AMS - Liquid	2.5 lb ai/a	A						
	0.0 a			0.0 a	91.8 a	87.5 a	100.0 a	92.5 a
5 Status (56 SG)	0.0875 lb ai/a	A						
Roundup PowerMax 4.5 SL	0.77 lb ae/a	A						
NIS	0.125 % v/v	A						
AMS - Liquid	2.5 lb ai/a	A						
	2.5 a			0.8 a	93.3 a	86.3 a	98.3 a	100.0 a
6 Yukon (67.5 DF)	0.084 lb ai/a	A						
Roundup PowerMax 4.5 SL	0.77 lb ae/a	A						
NIS	0.125 % v/v	A						
AMS - Liquid	2.5 lb ai/a	A						
	2.8 a			0.0 a	95.3 a	87.5 a	98.8 a	100.0 a
7 Yukon (67.5 DF)	0.169 lb ai/a	A						
Roundup PowerMax 4.5 SL	0.77 lb ae/a	A						
NIS	0.125 % v/v	A						
AMS - Liquid	2.5 lb ai/a	A						
	5.0 a			1.5 a	92.0 a	91.5 a	96.8 a	100.0 a
8 Roundup PowerMax 4.5 SL	0.77 lb ae/a	A						
NIS	0.125 % v/v	A						
AMS - Liquid	2.5 lb ai/a	A						
	3.3 a			0.3 a	85.8 a	78.8 a	96.3 a	83.8 a

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

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Pest Type			W Weed	W Weed	W Weed	W Weed		W Weed
Pest Code			SETFA	AMBTR	ABUTH	CHEAL		SETFA
Pest Scientific Name			Setaria faberi	Ambrosia trifida	Abutilon theophrasti	Chenopodium album		Setaria faberi
Pest Name			Giant foxtail	Giant ragweed	Velvetleaf	Common lambsquarters		Giant foxtail
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn
Rating Date	6-9-2011	6-16-2011	6-16-2011	6-16-2011	6-16-2011	6-16-2011	7-7-2011	7-7-2011
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit	%	%	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1	1	1
Crop Stage Majority	V4-V5	V5	V5	V5	V5	V5	V13	V13
Pest Stage Majority			1-12 IN	3-24 IN	1-6 IN	1-3 IN		36 IN
Pest Density, Unit			15 YD2	8 YD2	3 YD2	10.5YD2		50 YD2
Assessed By	CB/AR	AR/WJ	AR/WJ	AR/WJ	AR/WJ	AR/WJ	RT/RH	RT/RH
Days After First/Last Applic.	7 7	14 14	14 14	14 14	14 14	14 14	35 35	35 35
Trt-Eval Interval	7 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	35 DA-A	35 DA-A
Plant-Eval Interval	28 DP-1	35 DP-1	35 DP-1	35 DP-1	35 DP-1	35 DP-1	56 DP-1	56 DP-1
Days After Emergence	18 DE-1	25 DE-1	25 DE-1	25 DE-1	25 DE-1	25 DE-1	46 DE-1	46 DE-1
Trt Treatment	Rate	Unit	Appl Code					
No. Name	1	2	3	4	5	6	7	8
9 Solida (25 WG)	0.0156 lb ai/a	A						
Glyfos Xtra (3 SL)	0.75 lb ae/a	A						
AMS - Liquid	2.5 lb ai/a	A						
10 Glyfos Xtra (3 SL)	0.75 lb ae/a	A						
AMS - Liquid	2.5 lb ai/a	A						
LSD (P=.05)	4.05	1.31	12.60	7.83	3.57	13.98	0.00	19.23
Standard Deviation	2.79	0.90	8.69	5.40	2.46	9.64	0.00	13.25
CV	141.33	240.58	10.38	7.0	2.8	11.18	0.0	17.15
Bartlett's X2	5.623	4.169	26.223	13.257	8.722	12.143	0.0	21.501
P(Bartlett's X2)	0.467	0.384	0.001*	0.103	0.19	0.016*	.	0.006*
Replicate F	0.508	1.751	2.307	2.023	0.872	2.132	0.000	0.935
Replicate Prob(F)	0.6801	0.1804	0.0991	0.1344	0.4678	0.1195	1.0000	0.4373
Treatment F	1.636	1.246	46.785	102.830	632.879	40.854	0.000	17.570
Treatment Prob(F)	0.1549	0.3100	0.0001	0.0001	0.0001	0.0001	1.0000	0.0001

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	ABUTH	CHEAL	AMARE	SETFA	AMBTR	ABUTH
Pest Scientific Name	Ambrosia trifida	Abutilon theophrasti	Chenopodium album	Amaranthus retrofractus	Setaria faberii	Ambrosia trifida	Abutilon theophrasti
Pest Name	Giant ragweed	Velvetleaf	Common lambsquarters	Redroot pigweed	Giant foxtail	Giant ragweed	Velvetleaf
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
Rating Date	7-7-2011	7-7-2011	7-7-2011	7-7-2011	8-1-2011	8-1-2011	8-1-2011
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1	1
Crop Stage Majority	V13	V13	V13	V13	V13	V13	V13
Pest Stage Majority	48-60 IN	24 IN	12 IN	12 IN	30 IN	96 IN	24 IN
Pest Density, Unit	10 YD2	4 YD2	7 YD2	7 YD2	60 YD2	5 YD2	2 YD2
Assessed By	RT/RH	RT/RH	RT/RH	RT/RH	MW	MW	MW
Days After First/Last Applic.	35 35	35 35	35 35	35 35	60 60	60 60	60 60
Trt-Eval Interval	35 DA-A	35 DA-A	35 DA-A	35 DA-A	60 DA-A	60 DA-A	60 DA-A
Plant-Eval Interval	56 DP-1	56 DP-1	56 DP-1	56 DP-1	81 DP-1	81 DP-1	81 DP-1
Days After Emergence	46 DE-1	46 DE-1	46 DE-1	46 DE-1	71 DE-1	71 DE-1	71 DE-1
Trt Treatment	Rate	Rate	Rate	Rate	Rate	Rate	Rate
No. Name	Rate Unit Appl Code	Rate Unit Appl Code	Rate Unit Appl Code	Rate Unit Appl Code	Rate Unit Appl Code	Rate Unit Appl Code	Rate Unit Appl Code
1 Untreated Check	0.0 d	0.0 b	0.0 b	0.0 c	0.0 b	0.0 b	0.0 b
2 GWN-3404 (75 DF) Roundup PowerMax 4.5 SL NIS AMS - Liquid	0.035 lb ai/a A 0.77 lb ae/a A 0.125 % v/v A 2.5 lb ai/a A	69.5 ab	100.0 a	72.5 a	100.0 a	94.3 a	87.5 a
3 GWN-3041 (75 DF) Roundup PowerMax 4.5 SL NIS AMS - Liquid	0.0314 lb ai/a A 0.77 lb ae/a A 0.125 % v/v A 2.5 lb ai/a A	71.3 ab	100.0 a	86.3 a	97.5 a	92.5 a	86.3 a
4 Callisto (4.0 SC) Roundup PowerMax 4.5 SL NIS AMS - Liquid	0.047 lb ai/a A 0.77 lb ae/a A 0.125 % v/v A 2.5 lb ai/a A	75.8 a	98.8 a	95.0 a	95.0 a	93.5 a	90.0 a
5 Status (56 SG) Roundup PowerMax 4.5 SL NIS AMS - Liquid	0.0875 lb ai/a A 0.77 lb ae/a A 0.125 % v/v A 2.5 lb ai/a A	67.5 ab	85.0 a	100.0 a	100.0 a	94.8 a	90.0 a
6 Yukon (67.5 DF) Roundup PowerMax 4.5 SL NIS AMS - Liquid	0.084 lb ai/a A 0.77 lb ae/a A 0.125 % v/v A 2.5 lb ai/a A	80.3 a	91.3 a	92.5 a	100.0 a	94.3 a	94.3 a
7 Yukon (67.5 DF) Roundup PowerMax 4.5 SL NIS AMS - Liquid	0.169 lb ai/a A 0.77 lb ae/a A 0.125 % v/v A 2.5 lb ai/a A	75.3 a	92.5 a	100.0 a	100.0 a	94.3 a	89.3 a
8 Roundup PowerMax 4.5 SL NIS AMS - Liquid	0.77 lb ae/a A 0.125 % v/v A 2.5 lb ai/a A	47.5 c	81.3 a	70.0 a	73.8 b	93.0 a	81.3 a

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

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	ABUTH	CHEAL	AMARE	SETFA	AMBTR	ABUTH
Pest Scientific Name	Ambrosia trif>	Abutilon theop>	Chenopodium al>	Amaranthus ret>	Setaria faberi	Ambrosia trif>	Abutilon theop>
Pest Name	Giant ragweed	Velvetleaf	Common lambsqu>	Redroot pigweed	Giant foxtail	Giant ragweed	Velvetleaf
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
Rating Date	7-7-2011	7-7-2011	7-7-2011	7-7-2011	8-1-2011	8-1-2011	8-1-2011
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1	1
Crop Stage Majority	V13	V13	V13	V13			
Pest Stage Majority	48-60 IN	24 IN	12 IN	12 IN	30 IN	96 IN	24 IN
Pest Density, Unit	10 YD2	4 YD2	7 YD2	7 YD2	60 YD2	5 YD2	2 YD2
Assessed By	RT/RH	RT/RH	RT/RH	RT/RH	MW	MW	MW
Days After First/Last Applic.	35 35	35 35	35 35	35 35	60 60	60 60	60 60
Trt-Eval Interval	35 DA-A	35 DA-A	35 DA-A	35 DA-A	60 DA-A	60 DA-A	60 DA-A
Plant-Eval Interval	56 DP-1	56 DP-1	56 DP-1	56 DP-1	81 DP-1	81 DP-1	81 DP-1
Days After Emergence	46 DE-1	46 DE-1	46 DE-1	46 DE-1	71 DE-1	71 DE-1	71 DE-1
Trt Treatment	Rate	Rate	Rate	Rate	Rate	Rate	Rate
No. Name	Unit	Unit	Unit	Unit	Unit	Unit	Unit
	Code	Code	Code	Code	Code	Code	Code
	9	10	11	12	13	14	15
9 Solida (25 WG)	0.0156 lb ai/a A	66.5 ab	86.3 a	87.5 a	100.0 a	96.0 a	83.8 a
Glyfos Xtra (3 SL)	0.75 lb ae/a A						
AMS - Liquid	2.5 lb ai/a A						
10 Glyfos Xtra (3 SL)	0.75 lb ae/a A	53.8 bc	80.0 a	90.0 a	100.0 a	96.5 a	83.8 a
AMS - Liquid	2.5 lb ai/a A						
LSD (P=.05)	14.08	17.78	26.65	11.37	4.55	10.08	4.89
Standard Deviation	9.71	12.26	18.37	7.83	3.13	6.94	3.37
CV	15.98	15.04	23.14	9.04	3.69	8.84	3.9
Bartlett's X2	8.562	13.321	10.165	5.95	11.867	9.125	8.788
P(Bartlett's X2)	0.381	0.038*	0.118	0.051	0.157	0.244	0.268
Replicate F	0.066	0.544	0.679	1.558	2.275	0.494	0.425
Replicate Prob(F)	0.9774	0.6565	0.5726	0.2224	0.1025	0.6898	0.7369
Treatment F	23.575	23.312	10.448	64.686	363.279	64.456	325.608
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)
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Pest Type	W Weed		
Pest Code	CHEAL		
Pest Scientific Name	Chenopodium al		
Pest Name	Common lambsqu		
Crop Code	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn
Rating Date	8-1-2011	10-25-2011	10-25-2011
Rating Type	CONTRO	MOICON	YIELD
Rating Unit	%	%	bu/ac
Number of Subsamples	1	1	1
Crop Stage Majority			
Pest Stage Majority	20 IN		
Pest Density, Unit	2 YD2		
Assessed By	MW		
Days After First/Last Applic.	60 60	145 145	145 145
Trt-Eval Interval	60 DA-A	145 DA-A	145 DA-A
Plant-Eval Interval	81 DP-1	166 DP-1	166 DP-1
Days After Emergence	71 DE-1	156 DE-1	156 DE-1
Trt Treatment	Rate	Rate	Rate
No. Name	Unit	Unit	Unit
	Code	Code	Code
	16	17	18
1 Untreated Check	0.0 b	16.4150026 a	90.60 b
2 GWN-3404 (75 DF)	0.035 lb ai/a A		
Roundup PowerMax 4.5 SL	0.77 lb ae/a A	96.8 a	15.8750016 a
NIS	0.125 % v/v A		
AMS - Liquid	2.5 lb ai/a A		
3 GWN-3041 (75 DF)	0.0314 lb ai/a A		
Roundup PowerMax 4.5 SL	0.77 lb ae/a A	95.0 a	16.2300012 a
NIS	0.125 % v/v A		
AMS - Liquid	2.5 lb ai/a A		
4 Callisto (4.0 SC)	0.047 lb ai/a A		
Roundup PowerMax 4.5 SL	0.77 lb ae/a A	96.8 a	15.8075015 a
NIS	0.125 % v/v A		
AMS - Liquid	2.5 lb ai/a A		
5 Status (56 SG)	0.0875 lb ai/a A		
Roundup PowerMax 4.5 SL	0.77 lb ae/a A	97.5 a	15.8075015 a
NIS	0.125 % v/v A		
AMS - Liquid	2.5 lb ai/a A		
6 Yukon (67.5 DF)	0.084 lb ai/a A		
Roundup PowerMax 4.5 SL	0.77 lb ae/a A	97.5 a	16.2500016 a
NIS	0.125 % v/v A		
AMS - Liquid	2.5 lb ai/a A		
7 Yukon (67.5 DF)	0.169 lb ai/a A		
Roundup PowerMax 4.5 SL	0.77 lb ae/a A	99.0 a	16.5075013 a
NIS	0.125 % v/v A		
AMS - Liquid	2.5 lb ai/a A		
8 Roundup PowerMax 4.5 SL	0.77 lb ae/a A		
NIS	0.125 % v/v A	88.5 a	16.0775010 a
AMS - Liquid	2.5 lb ai/a A		

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

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Pest Type	W Weed		
Pest Code	CHEAL		
Pest Scientific Name	Chenopodium al>		
Pest Name	Common lambsqu>		
Crop Code	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn
Rating Date	8-1-2011	10-25-2011	10-25-2011
Rating Type	CONTRO	MOICON	YIELD
Rating Unit	%	%	bu/ac
Number of Subsamples	1	1	1
Crop Stage Majority			
Pest Stage Majority	20 IN		
Pest Density, Unit	2 YD2		
Assessed By	MW		
Days After First/Last Applic.	60 60	145 145	145 145
Trt-Eval Interval	60 DA-A	145 DA-A	145 DA-A
Plant-Eval Interval	81 DP-1	166 DP-1	166 DP-1
Days After Emergence	71 DE-1	156 DE-1	156 DE-1
Trt Treatment			
No. Name	Rate Unit Appl Code		
	16	17	18
9 Solida (25 WG)	0.0156 lb ai/a A	96.0 a	16.2150018 a
Glyphs Xtra (3 SL)	0.75 lb ae/a A		
AMS - Liquid	2.5 lb ai/a A		
10 Glyphs Xtra (3 SL)	0.75 lb ae/a A	96.5 a	16.4325025 a
AMS - Liquid	2.5 lb ai/a A		
LSD (P= .05)	6.52	0.88806221	35.468
Standard Deviation	4.49	0.61204171	24.444
CV	5.2	3.79	14.0
Bartlett's X2	21.581	16.159	9.646
P(Bartlett's X2)	0.003*	0.064	0.38
Replicate F	4.212	1.262	1.013
Replicate Prob(F)	0.0144	0.3071	0.4022
Treatment F	184.140	0.727	6.650
Treatment Prob(F)	0.0001	0.6805	0.0001

Purdue University

Efficacy of GWN-3404 and GWN-3041 and Yukon in Combination with Glyphosate for Broadleaf Weed Control in Corn.

Trial ID: 11S-THP-CTC-05

Protocol ID: 11S-THP-CTC-105

Location: Throckmorton
Project ID:Study Director: White/Marquardt
Investigator: Dr. Bill Johnson

Sponsor Contact: Gowan - Nick Vandervort

Pest Type

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

Pest Code

SETFA, Setaria faberi, = US

AMBTR, Ambrosia trifida, = US

ABUTH, Abutilon theophrasti, = US

CHEAL, Chenopodium album, = US

AMARE, Amaranthus retroflexus, = US

Crop Code

ZEAMX, BCOR, Zea mays, = US

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

MOICON = moisture content

YIELD = yield

Rating Unit

% = percent

bu/ac = bushels per acre

YD2 = per square yard

Plant-Eval Interval

28 DP-1 = 1 ZEAMD 5-12-2011

35 DP-1 = 1 ZEAMD 5-12-2011

56 DP-1 = 1 ZEAMD 5-12-2011

81 DP-1 = 1 ZEAMD 5-12-2011

166 DP-1 = 1 ZEAMD 5-12-2011