

## Evaluation of DuPont Harmony Extra plus other Actives for Control of Broadleaf Weeds.

Trial ID: 11-HRC-H6-DuPont Location: 11-HRC-H6-DuPont

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu  
 City State Zip Country: Carbondale IL 62901 USA  
 Trial Status: FINAL Initiation Date: 10-5-10

Objectives: Evaluate weed control and crop safety of DuPont cereal herbicide program for broadleaf weed control in winter wheat.

Crop 1: TRZAW Winter wheat Variety: FS 637  
 Planting Method: SEEDED Planting Date: 10-5-10  
 Rate, Unit: 1.45 mil. S/A Depth, Unit: 1.5 IN  
 Row Spacing, Unit: 7.5 IN

Pest 1 Type: W Code: ALLVI Allium vineale L. garlic, wild  
 Pest 2 Type: W Code: LAMAM Lamium amplexicaule L. henbit  
 Pest 3 Type: W Code: POAAN Poa annua L. bluegrass, annual

Plot Width, Unit: 10 FT Site Type: FIELD  
 Plot Length, Unit: 30 FT Tillage Type: NO-TILL  
 Replications: 3 Study Design: Randomized Complete Block

Prior Crops, Year  
 1. ZEAMD 2010

Field Prep./Maintenance: Fall: N 27 LB/A, P2O5 69 LB/A, K2O 200 LB/A  
 Spring: N 95 LB/A, P2O5 0 LB/A, K2O 0 LB/A as 32% UAN

% OM: 1.5 Texture: SILT LOAM  
 pH: 6.5 Soil Name: HOSMER  
 CEC: 7.2 Fert. Level: P1: 46 LB/A, K: 153 LB/A

## Application Description

A  
 Application Date: 3-22-11  
 Time of Day: 8:15 am  
 Application Method: Spray  
 Application Timing: 1-3"NG  
 Application Placement: BROFOL  
 Applied By: NRJ  
 Air Temperature, Unit: 65 F  
 % Relative Humidity: 72  
 Wind Velocity, Unit: 4 MPH  
 Wind Direction: S  
 Dew Presence (Y/N): N  
 Soil Temperature, Unit: 54 F  
 Soil Moisture: NORMAL  
 % Cloud Cover: 90

22-3-11  
 Crop stage at application: FK 2  
 Height Min, Max (inch): 3 5

## Pest Stage At Each Application

Application Date: 3-22-11  
 Weed Code: ALLVI  
 Stage Majority (leaves): 2  
 Stage Min, Max: 1 2  
 Height Majority: 3.5 IN  
 Height Min, Max: 2 5  
 Density, Unit: 3 FT2  
 Weed Code: LAMAM  
 Stage Majority (leaves): 25  
 Stage Min, Max: 20 30  
 Height Majority: 3 IN  
 Height Min, Max: 3 4  
 Density, Unit: 3 FT2  
 Weed Code: POAAN  
 Stage Majority (leaves): 7  
 Stage Min, Max: 5 10  
 Height Majority: 1 IN  
 Height Min, Max: 1 1.5  
 Density, Unit: 0.5 FT2

## Application Equipment

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

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Pest Code	Crop Code	Rating Date	Rating Data Type	Rating Unit	Rating Timing	Trt-Eval Interval	TRZAW		ALLVI		ALLVI		LAMAM		LAMAM	
							4-5-11 Injury Percent	4-19-11 Injury Percent	5-3-11 Injury Percent	4-12-11 Control Percent	5-3-11 Control Percent	6-10-11 Control Percent	4-12-11 Control Percent	5-3-11 Control Percent		
							14 DA-A	28 DA-A	42 DA-A	21 DA-A	42 DA-A	80 DA-A	21 DA-A	42 DA-A		
1	HARMONY EXTRA SG	50 SG	0.0234 lb ai/a	0.75 oz/a	2-3"NG A		0 a	0 a	0 a	72 abc	77 a	99 a	87 bc	99 a		
1	NIS (ACTIVATOR 90)	100 SL	0.25 % v/v	0.25 % v/v	2-3"NG A											
2	HARMONY EXTRA SG	50 SG	0.0234 lb ai/a	0.75 oz/a	2-3"NG A		0 a	0 a	0 a	67 bcd	87 a	99 a	83 bc	99 a		
2	DICAMBA	70 WG	0.0625 lb ai/a	1.43 oz/a	2-3"NG A											
2	NIS (ACTIVATOR 90)	100 SL	0.25 % v/v	0.25 % v/v	2-3"NG A											
3	HARMONY EXTRA SG	50 SG	0.0234 lb ai/a	0.75 oz/a	2-3"NG A		0 a	0 a	0 a	73 ab	82 a	99 a	80 c	99 a		
3	DICAMBA	70 WG	0.125 lb ai/a	2.86 oz/a	2-3"NG A											
3	NIS (ACTIVATOR 90)	100 SL	0.25 % v/v	0.25 % v/v	2-3"NG A											
4	HARMONY EXTRA SG	50 SG	0.0234 lb ai/a	0.75 oz/a	2-3"NG A		0 a	0 a	0 a	67 bcd	87 a	99 a	90 ab	99 a		
4	SENCOR	75 WG	0.094 lb ai/a	2 oz/a	2-3"NG A											
4	NIS (ACTIVATOR 90)	100 SL	0.25 % v/v	0.25 % v/v	2-3"NG A											
5	HARMONY EXTRA SG	50 SG	0.0234 lb ai/a	0.75 oz/a	2-3"NG A		0 a	0 a	0 a	80 a	88 a	99 a	97 a	99 a		
5	SENCOR	75 WG	0.188 lb ai/a	4 oz/a	2-3"NG A											
5	NIS (ACTIVATOR 90)	100 SL	0.25 % v/v	0.25 % v/v	2-3"NG A											
6	HARMONY EXTRA SG	50 SG	0.0234 lb ai/a	0.75 oz/a	2-3"NG A		0 a	0 a	0 a	62 cd	77 a	99 a	91 ab	99 a		
6	POWERFLEX	7.5 WG	0.0164 lb ai/a	3.5 oz/a	2-3"NG A											
6	NIS (ACTIVATOR 90)	100 SL	0.25 % v/v	0.25 % v/v	2-3"NG A											
7	HARMONY EXTRA SG	50 SG	0.0234 lb ai/a	0.75 oz/a	2-3"NG A		0 a	0 a	0 a	47 f	80 a	99 a	86 bc	99 a		
7	STARANE	1.5 EC	0.062 lb ai/a	0.33 pt/a	2-3"NG A											
7	NIS (ACTIVATOR 90)	100 SL	0.25 % v/v	0.25 % v/v	2-3"NG A											
8	HARMONY EXTRA SG	50 SG	0.0234 lb ai/a	0.75 oz/a	2-3"NG A		0 a	0 a	0 a	62 cd	87 a	99 a	87 bc	99 a		
8	STARANE	1.5 EC	0.126 lb ai/a	0.67 pt/a	2-3"NG A											
8	NIS (ACTIVATOR 90)	100 SL	0.25 % v/v	0.25 % v/v	2-3"NG A											
9	HARMONY EXTRA SG	50 SG	0.0234 lb ai/a	0.75 oz/a	2-3"NG A		0 a	0 a	0 a	60 de	83 a	99 a	87 bc	99 a		
9	AIM	2 EC	0.0078 lb ai/a	0.5 fl oz/a	2-3"NG A											
9	NIS (ACTIVATOR 90)	100 SL	0.25 % v/v	0.25 % v/v	2-3"NG A											
10	HARMONY EXTRA SG	50 SG	0.0234 lb ai/a	0.75 oz/a	2-3"NG A		0 a	0 a	0 a	58 de	82 a	99 a	82 c	99 a		
10	AIM	2 EC	0.0156 lb ai/a	1 fl oz/a	2-3"NG A											
10	NIS (ACTIVATOR 90)	100 SL	0.25 % v/v	0.25 % v/v	2-3"NG A											
11	HARMONY EXTRA SG	50 SG	0.0234 lb ai/a	0.75 oz/a	2-3"NG A		0 a	0 a	0 a	50 ef	80 a	99 a	60 d	99 a		
11	BUCTRIL	2 EC	0.187 lb ai/a	0.75 pt/a	2-3"NG A											
11	NIS (ACTIVATOR 90)	100 SL	0.25 % v/v	0.25 % v/v	2-3"NG A											
12	HARMONY EXTRA SG	50 SG	0.0234 lb ai/a	0.75 oz/a	2-3"NG A		0 a	0 a	0 a	47 f	82 a	99 a	67 d	99 a		
12	BUCTRIL	2 EC	0.375 lb ai/a	1.5 pt/a	2-3"NG A											
12	NIS (ACTIVATOR 90)	100 SL	0.25 % v/v	0.25 % v/v	2-3"NG A											
13	NONTREATED						0 a	0 a	0 a	0 g	0 b	0 b	0 e	0 b		
LSD (P=.05)							0.0	0.0	0.0	10.5	13.8	0.0	7.8	0.0		
Replicate F							0.000	0.000	0.000	4.853	0.086	0.000	3.358	0.000		
Replicate Prob(F)							1.0000	1.0000	1.0000	0.0170	0.9176	1.0000	0.0518	1.0000		
Treatment F							0.000	0.000	0.000	30.875	24.118	0.000	87.311	0.000		
Treatment Prob(F)							1.0000	1.0000	1.0000	0.0001	0.0001	1.0000	0.0001	1.0000		

Means followed by same letter do not significantly differ (P=.05, LSD)

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Trial ID: 11-HRC-H6-DuPont Location: 11-HRC-H6-DuPont

Pest Code	POAAN	POAAN
Crop Code		
Rating Date	4-12-11	5-3-11
Rating Data Type	Control	Control
Rating Unit	Percent	Percent
Rating Timing		
Trt-Eval Interval	21 DA-A	42 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	HARMONY EXTRA SG	50	SG	0.0234	lb ai/a	0.75	oz/a	2-3"NG	A	0	c
1	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-3"NG	A		
2	HARMONY EXTRA SG	50	SG	0.0234	lb ai/a	0.75	oz/a	2-3"NG	A	0	c
2	DICAMBA	70	WG	0.0625	lb ai/a	1.43	oz/a	2-3"NG	A		
2	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-3"NG	A		
3	HARMONY EXTRA SG	50	SG	0.0234	lb ai/a	0.75	oz/a	2-3"NG	A	0	c
3	DICAMBA	70	WG	0.125	lb ai/a	2.86	oz/a	2-3"NG	A		
3	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-3"NG	A		
4	HARMONY EXTRA SG	50	SG	0.0234	lb ai/a	0.75	oz/a	2-3"NG	A	28	b
4	SENCOR	75	WG	0.094	lb ai/a	2	oz/a	2-3"NG	A		
4	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-3"NG	A		
5	HARMONY EXTRA SG	50	SG	0.0234	lb ai/a	0.75	oz/a	2-3"NG	A	93	a
5	SENCOR	75	WG	0.188	lb ai/a	4	oz/a	2-3"NG	A		
5	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-3"NG	A		
6	HARMONY EXTRA SG	50	SG	0.0234	lb ai/a	0.75	oz/a	2-3"NG	A	0	c
6	POWERFLEX	7.5	WG	0.0164	lb ai/a	3.5	oz/a	2-3"NG	A		
6	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-3"NG	A		
7	HARMONY EXTRA SG	50	SG	0.0234	lb ai/a	0.75	oz/a	2-3"NG	A	0	c
7	STARANE	1.5	EC	0.062	lb ai/a	0.33	pt/a	2-3"NG	A		
7	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-3"NG	A		
8	HARMONY EXTRA SG	50	SG	0.0234	lb ai/a	0.75	oz/a	2-3"NG	A	0	c
8	STARANE	1.5	EC	0.126	lb ai/a	0.67	pt/a	2-3"NG	A		
8	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-3"NG	A		
9	HARMONY EXTRA SG	50	SG	0.0234	lb ai/a	0.75	oz/a	2-3"NG	A	0	c
9	AIM	2	EC	0.0078	lb ai/a	0.5	fl oz/a	2-3"NG	A		
9	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-3"NG	A		
10	HARMONY EXTRA SG	50	SG	0.0234	lb ai/a	0.75	oz/a	2-3"NG	A	0	c
10	AIM	2	EC	0.0156	lb ai/a	1	fl oz/a	2-3"NG	A		
10	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-3"NG	A		
11	HARMONY EXTRA SG	50	SG	0.0234	lb ai/a	0.75	oz/a	2-3"NG	A	0	c
11	BUCTRIL	2	EC	0.187	lb ai/a	0.75	pt/a	2-3"NG	A		
11	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-3"NG	A		
12	HARMONY EXTRA SG	50	SG	0.0234	lb ai/a	0.75	oz/a	2-3"NG	A	0	c
12	BUCTRIL	2	EC	0.375	lb ai/a	1.5	pt/a	2-3"NG	A		
12	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-3"NG	A		
13	NONTREATED									0	c
LSD (P=.05)										12.9	10.8
Replicate F										1.131	1.296
Replicate Prob(F)										0.3394	0.2922
Treatment F										35.861	50.664
Treatment Prob(F)										0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

## Trial Comments

1. Protocol: DuPont - US 450/11/01
2. Ratings: CI 14 DAT and every 14d until no injury persists; WC 21 (21-28) and 42 (42-48) DAT.
3. Weed(s) of interest: ALLVI.
4. Not harvested.