

# Purdue University

Fall Applied No-till Corn trial at ACRE

Trial ID: 05F-ACR-NTC-05  
Location: ACRE

Study Dir.: Vince Davis  
Investigator: Dr. William G. Johnson

## GENERAL TRIAL INFORMATION

**Study Director:** Vince Davis **Title:** Research Associate  
**Affiliation:** Purdue University  
**Postal Code:** 47907  
**Investigator:** Dr. William G. Johnson **Title:** Associate Professor  
**Affiliation:** Purdue University  
**Postal Code:** 47907

## TRIAL LOCATION

**City:** West Lafayette  
**State/Prov.:** IN  
**Postal Code:** 47906  
**Country:** USA  
**Unit:** feet  
**Directions:** Agronomy Center for Research and Education (ACRE) - Field 102

## COOPERATOR/LANDOWNER

**Cooperator:** Agronomy Center for Res. & Educ. **Country:** USA  
**Org:** Purdue University **Phone No:** 765-463-2632  
**Address 1:** 4540 U.S. 52 West  
**City:** West Lafayette  
**State/Prov:** IN  
**Postal Code:** 47906

**Conducted Under GLP (Y/N):** N **Conducted Under GEP (Y/N):** N

**Objective:** The objective of this study is to evaluate fall and spring applied no-till burndown herbicide treatments prior to corn.

## CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	TAROF	Common dandelion	Taraxacum officinale
2.	RANAB	Buttercup, smallflower	Ranunculus abortivus
3.	ERICA	Horseweed	Erigeron canadensis
4.	SENGL	Cressleaf groundsel	Senecio glabellus

**Crop 1:** ZEAMX CORN, FIELD **Variety:** DKC 60-18 RRII/YGPL  
**Planting Date:** 27/Apr/2006 **Planting Method:** DIRECT DRILLED  
**Rate:** 30800 S/A **Depth:** 2 IN  
**Row Spacing:** 30 IN **Soil Moisture:** NORMAL **Emergence Date:** 8/May/2006

## SITE AND DESIGN

**Plot Width, Unit:** 10 FT **Plot Length, Unit:** 30 FT **Reps:** 4  
**Site Type:** FIELD  
**Tillage Type:** NO-TILL **Study Design:** RANDOMIZED COMPLETE BLOCK

	Previous Crops	Previous Pesticides	Year
1.	Fallow	None Fallow	2005

## MAINTENANCE

**Field Prep./Maintenance:** None.

## SOIL DESCRIPTION

**% OM:** 3 **Texture:** FINE SILTY LOAM  
**pH:** 6.3 **Soil Name:** Raub / mixed, mesic, Aquic Argiudoll  
**CEC:** 19 **Fert. Level:** GOOD

## ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit
Phosphorus	44	LBS/ACRE
Potassium	193	LBS/ACRE
Calcium	4343	LBS/ACRE
Magnesium	1079	LBS/ACRE

**Closest Weather Station:** ON SITE

**Distance:** 1 **Unit:** MI

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## APPLICATION DESCRIPTION

	A	B	C
Application Date:	31/Oct/2005	20/Apr/2006	2/Jun/2006
Time of Day:	11:30 am	9:30 am	9:30 am
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	FALL	14d EPP	V4-V5
Applic. Placement:	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	62 F	68 F	64 F
% Relative Humidity:	65	52	60
Wind Velocity, Unit:	7.5 MPH	1.5 MPH	4 MPH
Dew Presence (Y/N):	N	Y	N
Water Hardness:	288 CaCO3	288 CaCO3	288 CaCO3
Soil Temp., Unit:	50 F	56 F	67 F
Soil Moisture:	MOIST	Moist	Moist
% Cloud Cover:	60	30	0

## CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	ZEAMX	ZEAMX	ZEAMX
Stage Scale:	NA	NA	V4

## WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	TAROF	TAROF 12-20"	TAROF 12-24"
Stage Scale:	rosette	Flowering	Flowering
Density, Unit:	4 YD2	4 YD2	4 YD2
Weed 2 Code, Stage:	RANAB	RANAB	RANAB
Stage Scale:	2-3l 1-2"	bolting4"	
Density, Unit:	60 YD2	5 YD2	
Weed 3 Code, Stage:	ERICA	ERICA	ERICA
Stage Scale:	1" rosett	rosette3"	6-14"
Density, Unit:	160 YD2	1000 YD2	600 YD2
Weed 4 Code, Stage:	SENGL	SENGL	SENGL
Stage Scale:	2-3" rose	bolting4"	
Density, Unit:	2 YD2	.5 YD2	

## APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	BackPack	Backpack	4-wheeler
Operating Pressure:	27 psi	15 psi	27 psi
Nozzle Type:	XR	XR	XR
Nozzle Size:	11002	11002	11002
Nozzle Spacing, Unit:	20 IN	15 IN	18 IN
Boom Length, Unit:	10 FT	10 FT	15 FT
Boom Height, Unit:	20 IN	15 IN	18 IN
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH
Incorporation Equip.:	None	None	None
Hours to Incorp.:	0	0	0
Incorp. Depth, Unit:	0 IN	0 IN	0 IN
Carrier:	H2O	H2O	H2O
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA
Propellant:	CO2	CO2	CO2

## Trial Comments

The V4-V5 application was made, but apparently steadfast was not included in the spray mixture as needed for the protocol. Foxtail was present in all treatments at the 28 post treatment rating so only dandelion was rated.

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## Fall Applied No-till Corn trial at ACRE

Trial ID: 05F-ACR-NTC-05  
 Location: ACRE

Study Dir.: Vince Davis  
 Investigator: Dr. William G. Johnson

								TAROF	RANAB	ERICA	SENGL	SETFA	ERICA	
								EFF	EFF	EFF	EFF	EFF	EFF	
								%	%	%	%	%	%	
								27/Mar/2006	27/Mar/2006	27/Mar/2006	27/Mar/2006	17/May/2006	17/May/2006	
								NA	NA	NA	NA	V1	V1	
								4-8"	3"	1.5"	3-4"	1-3"	1-2"	
								1-3 YD2	1 YD2	20 YD2	20 YD2	600 YD2	50 YD2	
								EC	AW	J MAC		WJ + JD	WJ + JD	
Tri	Treatment	Rate	Product	Product	Grow	Appl	Plot	1	2	3	4	5	6	
No.	Name	Rate	Unit	Rate	Rate Unit	Stg	Code							
1	Non-Treated Check							101	0	0	0	0	0	
								506	0	0	0	0	0	
								703	0	0	0	0	0	
								909	0	0	0	0	0	
							Mean =		0	0	0	0	0	
2	Autumn	0.85	G A/A	0.3	OZ/A	FALLBD	A	102	90	100	50	100	40	0
	COC	1	% V/V	1	% V/V	FALLBD	A	408	100	100	40	100	0	0
	UAN 28%	2.5	% V/V	1.5	QT/A	FALLBD	A	605	100	100	60	100	30	0
								1005	100	97	95	100	40	0
							Mean =		98	99	61	100	28	0
3	Autumn	1.7	G A/A	0.6	OZ/A	FALLBD	A	103	98	100	60	100	30	0
	COC	1	% V/V	1	% V/V	FALLBD	A	501	100	100	30	100	50	0
	UAN 28%	2.5	% V/V	1.5	QT/A	FALLBD	A	710	100	100	40	100	25	0
								807	95	100	50	100	0	0
							Mean =		98	100	45	100	26	0
4	Autumn	0.85	G A/A	0.3	OZ/A	FALLBD	A	104	100	100	80	100	30	90
	Princep 4FL	1	LB A/A	1	QT/A	FALLBD	A	510	100	98	98	100	30	0
	COC	1	% V/V	1	% V/V	FALLBD	A	708	100	100	99	100	40	60
	UAN 28%	2.5	% V/V	1.5	QT/A	FALLBD	A	1003	100	100	99	100	20	60
							Mean =		100	100	94	100	30	53
5	Autumn	0.85	G A/A	0.3	OZ/A	FALLBD	A	105	95	100	100	100	0	40
	Sencor 75DF	0.25	LB A/A	5.33	OZ/A	FALLBD	A	405	95	100	98	100	30	60
	COC	1	% V/V	1	% V/V	FALLBD	A	706	95	100	98	100	40	0
	UAN 28%	2.5	% V/V	1.5	QT/A	FALLBD	A	1008	80	100	100	100	0	0
							Mean =		91	100	99	100	18	25
6	Autumn	0.85	G A/A	0.3	OZ/A	FALLBD	A	106	80	100	100	100	60	80
	Sencor 75DF	0.47	LB A/A	10	OZ/A	FALLBD	A	406	98	100	100	100	70	60
	COC	1	% V/V	1	% V/V	FALLBD	A	603	90	100	100	100	30	0
	UAN 28%	2.5	% V/V	1.5	QT/A	FALLBD	A	1001	95	100	100	100	30	40
							Mean =		91	100	100	100	48	45
7	Autumn	0.85	G A/A	0.3	OZ/A	FALLBD	A	107	100	100	99	100	0	30
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	410	100	100	98	100	0	0
	COC	1	% V/V	1	% V/V	FALLBD	A	608	100	100	95	100	40	0
	UAN 28%	2.5	% V/V	1.5	QT/A	FALLBD	A	810	100	99	100	100	0	0
							Mean =		100	100	98	100	10	8
8	Autumn	0.85	G A/A	0.3	OZ/A	FALLBD	A	108	99	100	98	100	0	40
	Roundup WeatherMAX	0.56	LB AE/A	1	PT/A	FALLBD	A	409	100	95	98	100	0	0
	AMS	2.5	LB A/A	2.5	LB/A	FALLBD	A	802	95	60	95	100	0	0
								904	100	95	99	100	30	20
							Mean =		99	88	98	100	8	15
9	Roundup WeatherMAX	0.56	LB AE/A	1	PT/A	FALLBD	A	109	100	100	99	100	0	30
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	401	95	100	100	100	0	0
	AMS	2.5	LB A/A	2.5	LB/A	FALLBD	A	702	100	100	100	100	0	0
								905	95	98	100	95	0	0
							Mean =		98	100	100	99	0	8

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								TAROF	RANAB	ERICA	SENGL	SETFA	ERICA	
								EFF	EFF	EFF	EFF	EFF	EFF	
								%	%	%	%	%	%	
								27/Mar/2006	27/Mar/2006	27/Mar/2006	27/Mar/2006	17/May/2006	17/May/2006	
								NA	NA	NA	NA	V1	V1	
								4-8"	3"	1.5"	3-4"	1-3"	1-2"	
								1-3 YD2	1 YD2	20 YD2	20 YD2	600 YD2	50 YD2	
								EC	AW	J MAC		WJ + JD	WJ + JD	
Trt No.	Treatment Name	Rate	Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4	5	6
10	Basis	0.375	OZ A/A	0.5	OZ/A	FALLBD	A	110	98	100	98	100	50	20
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	502	100	99	99	100	40	30
	COC	1	% V/V	1	% V/V	FALLBD	A	704	100	100	97	100	0	0
	Steadfast	0.56	OZ A/A	0.75	OZ/A	V4 - V5	C	809	100	100	99	100	30	20
	Callisto	1	OZ A/A	2	FL OZ/A	V4 - V5	C							
	Atrazine	0.9	LB A/A	0.9	QT/A	V4 - V5	C							
	AMS	2.5	LB A/A	2.5	LB/A	V4 - V5	C							
	COC	1	% V/V	1	% V/V	V4 - V5	C							
								Mean =	100	100	98	100	30	18
11	Basis	0.25	OZ A/A	0.333	OZ/A	FALLBD	A	201	100	100	99	100	70	80
	Karmex 80WP	12.8	OZ A/A	16	OZ/A	FALLBD	A	508	100	100	95	100	80	0
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	709	100	100	98	100	50	40
	COC	1	% V/V	1	% V/V	FALLBD	A	1006	98	100	99	100	0	30
	Steadfast	0.56	OZ A/A	0.75	OZ/A	V4 - V5	C							
	Callisto	1	OZ A/A	2	FL OZ/A	V4 - V5	C							
	Atrazine	0.9	LB A/A	0.9	QT/A	V4 - V5	C							
	AMS	2.5	LB A/A	2.5	LB/A	V4 - V5	C							
	COC	1	% V/V	1	% V/V	V4 - V5	C							
								Mean =	100	100	98	100	50	38
12	Basis	0.25	OZ A/A	0.333	OZ/A	FALLBD	A	202	100	100	99	100	65	80
	Princep 4FL	14.4	OZ A/A	1.8	PT/A	FALLBD	A	503	100	100	99	100	40	65
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	604	99	100	99	100	0	50
	COC	1	% V/V	1	% V/V	FALLBD	A	808	100	100	100	100	40	50
	Steadfast	0.56	OZ A/A	0.75	OZ/A	V4 - V5	C							
	Callisto	1	OZ A/A	2	FL OZ/A	V4 - V5	C							
	Atrazine	0.9	LB A/A	0.9	QT/A	V4 - V5	C							
	AMS	2.5	LB A/A	2.5	LB/A	V4 - V5	C							
	COC	1	% V/V	1	% V/V	V4 - V5	C							
								Mean =	100	100	99	100	36	61
13	Princep 4FL	14.4	OZ A/A	1.8	PT/A	FALLBD	A	203	99	100	100	100	0	50
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	507	100	100	100	100	95	97
	COC	1	% V/V	1	% V/V	FALLBD	A	801	100	100	100	100	70	98
	Steadfast	0.56	OZ A/A	0.75	OZ/A	V4 - V5	C	1010	100	100	100	100	0	70
	Callisto	1	OZ A/A	2	FL OZ/A	V4 - V5	C							
	Atrazine	0.9	LB A/A	0.9	QT/A	V4 - V5	C							
	AMS	2.5	LB A/A	2.5	LB/A	V4 - V5	C							
	COC	1	% V/V	1	% V/V	V4 - V5	C							
								Mean =	100	100	100	100	41	79

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Weed Code								ZEAME	SETFA	ERICA	TAROF	
Crop Code								Crop Injury	EFF	EFF	EFF	
Rating Data Type								%	%	%	%	
Rating Unit								17/May/2006	2/Jun/2006	2/Jun/2006	29/Jun/2006	
Rating Date								V1	V3	V3		
Crop Stage								3-5"	2-4"	9-20"		
Weed Stage								600 YD2	50 YD2	2-3 YD2		
Weed Density, Unit								WJ + JD	AW + AM	AW + AM	WGJ	
Assessed By												
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	7	8	9	10
1	Non-Treated Check							101	0	0	0	0
								506	0	0	0	0
								703	0	0	0	0
								909	0	0	0	0
								Mean =	0	0	0	0
2	Autumn	0.85	G A/A	0.3	OZ/A	FALLBD	A	102	0	85	0	95
	COC	1	% V/V	1	% V/V	FALLBD	A	408	10	95	0	90
	UAN 28%	2.5	% V/V	1.5	QT/A	FALLBD	A	605	0	95	0	70
								1005	0	70	0	50
								Mean =	3	86	0	76
3	Autumn	1.7	G A/A	0.6	OZ/A	FALLBD	A	103	0	75	0	85
	COC	1	% V/V	1	% V/V	FALLBD	A	501	10	85	0	98
	UAN 28%	2.5	% V/V	1.5	QT/A	FALLBD	A	710	15	100	0	100
								807	10	95	0	80
								Mean =	9	89	0	91
4	Autumn	0.85	G A/A	0.3	OZ/A	FALLBD	A	104	0	60	60	100
	Princep 4FL	1	LB A/A	1	QT/A	FALLBD	A	510	0	20	40	100
	COC	1	% V/V	1	% V/V	FALLBD	A	708	15	0	80	100
	UAN 28%	2.5	% V/V	1.5	QT/A	FALLBD	A	1003	0	0	30	100
								Mean =	4	20	53	100
5	Autumn	0.85	G A/A	0.3	OZ/A	FALLBD	A	105	0	35	75	10
	Sencor 75DF	0.25	LB A/A	5.33	OZ/A	FALLBD	A	405	0	50	70	90
	COC	1	% V/V	1	% V/V	FALLBD	A	706	10	75	85	80
	UAN 28%	2.5	% V/V	1.5	QT/A	FALLBD	A	1008	10	0	0	30
								Mean =	5	40	58	53
6	Autumn	0.85	G A/A	0.3	OZ/A	FALLBD	A	106	0	83	85	50
	Sencor 75DF	0.47	LB A/A	10	OZ/A	FALLBD	A	406	0	89	700	80
	COC	1	% V/V	1	% V/V	FALLBD	A	603	10	0	30	30
	UAN 28%	2.5	% V/V	1.5	QT/A	FALLBD	A	1001	0	20	40	50
								Mean =	3	48	214	53
7	Autumn	0.85	G A/A	0.3	OZ/A	FALLBD	A	107	0	45	25	80
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	410	0	15	55	70
	COC	1	% V/V	1	% V/V	FALLBD	A	608	10	50	40	95
	UAN 28%	2.5	% V/V	1.5	QT/A	FALLBD	A	810	10	80	80	100
								Mean =	5	48	50	86
8	Autumn	0.85	G A/A	0.3	OZ/A	FALLBD	A	108	0	30	35	50
	Roundup WeatherMAX	0.56	LB AE/A	1	PT/A	FALLBD	A	409	0	65	68	100
	AMS	2.5	LB A/A	2.5	LB/A	FALLBD	A	802	0	70	30	70
								904	10	80	80	85
								Mean =	3	61	53	76
9	Roundup WeatherMAX	0.56	LB AE/A	1	PT/A	FALLBD	A	109	0	0	65	30
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	401	0	0	75	50
	AMS	2.5	LB A/A	2.5	LB/A	FALLBD	A	702	0	0	90	98
								905	0	0	40	85
								Mean =	0	0	68	66

# Purdue University

Weed Code									ZEAME	SETFA	ERICA	TAROF
Crop Code									Crop Injury	EFF	EFF	EFF
Rating Data Type									%	%	%	%
Rating Unit									17/May/2006	2/Jun/2006	2/Jun/2006	29/Jun/2006
Rating Date									V1	V3	V3	
Crop Stage										3-5"	2-4"	9-20"
Weed Stage										600 YD2	50 YD2	2-3 YD2
Weed Density, Unit									WJ + JD	AW + AM	AW + AM	WGJ
Assessed By												
Trt No.	Treatment Name	Rate	Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	7	8	9	10
10	Basis	0.375	OZ A/A	0.5	OZ/A	FALLBD	A	110	0	60	45	30
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	502	0	50	50	90
	COC	1	% V/V	1	% V/V	FALLBD	A	704	10	30	65	70
	Steadfast	0.56	OZ A/A	0.75	OZ/A	V4 - V5	C	809	0	70	60	95
	Callisto	1	OZ A/A	2	FL OZ/A	V4 - V5	C					
	Atrazine	0.9	LB A/A	0.9	QT/A	V4 - V5	C					
	AMS	2.5	LB A/A	2.5	LB/A	V4 - V5	C					
	COC	1	% V/V	1	% V/V	V4 - V5	C					
	Mean =								3	53	55	71
11	Basis	0.25	OZ A/A	0.333	OZ/A	FALLBD	A	201	0	35	80	100
	Karmex 80WP	12.8	OZ A/A	16	OZ/A	FALLBD	A	508	0	80	50	90
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	709	0	90	85	100
	COC	1	% V/V	1	% V/V	FALLBD	A	1006	0	50	60	85
	Steadfast	0.56	OZ A/A	0.75	OZ/A	V4 - V5	C					
	Callisto	1	OZ A/A	2	FL OZ/A	V4 - V5	C					
	Atrazine	0.9	LB A/A	0.9	QT/A	V4 - V5	C					
	AMS	2.5	LB A/A	2.5	LB/A	V4 - V5	C					
	COC	1	% V/V	1	% V/V	V4 - V5	C					
	Mean =								0	64	69	94
12	Basis	0.25	OZ A/A	0.333	OZ/A	FALLBD	A	202	0	40	85	100
	Princep 4FL	14.4	OZ A/A	1.8	PT/A	FALLBD	A	503	0	75	75	100
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	604	10	0	70	40
	COC	1	% V/V	1	% V/V	FALLBD	A	808	0	50	70	90
	Steadfast	0.56	OZ A/A	0.75	OZ/A	V4 - V5	C					
	Callisto	1	OZ A/A	2	FL OZ/A	V4 - V5	C					
	Atrazine	0.9	LB A/A	0.9	QT/A	V4 - V5	C					
	AMS	2.5	LB A/A	2.5	LB/A	V4 - V5	C					
	COC	1	% V/V	1	% V/V	V4 - V5	C					
	Mean =								3	41	75	83
13	Princep 4FL	14.4	OZ A/A	1.8	PT/A	FALLBD	A	203	0	0	90	80
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	507	10	90	90	100
	COC	1	% V/V	1	% V/V	FALLBD	A	801	0	30	90	100
	Steadfast	0.56	OZ A/A	0.75	OZ/A	V4 - V5	C	1010	10	0	90	80
	Callisto	1	OZ A/A	2	FL OZ/A	V4 - V5	C					
	Atrazine	0.9	LB A/A	0.9	QT/A	V4 - V5	C					
	AMS	2.5	LB A/A	2.5	LB/A	V4 - V5	C					
	COC	1	% V/V	1	% V/V	V4 - V5	C					
	Mean =								5	30	90	90

# Purdue University

## Fall Applied No-till Corn trial at ACRE

Trial ID: 05F-ACR-NTC-05  
Location: ACRE

Study Dir.: Vince Davis  
Investigator: Dr. William G. Johnson

Weed Code							TAROF	RANAB	ERICA	SENGL	SETFA	ERICA	
Crop Code							EFF	EFF	EFF	EFF	EFF	EFF	
Rating Data Type							%	%	%	%	%	%	
Rating Unit							27/Mar/2006	27/Mar/2006	27/Mar/2006	27/Mar/2006	17/May/2006	17/May/2006	
Rating Date							NA	NA	NA	NA	V1	V1	
Crop Stage							4-8"	3"	1.5"	3-4"	1-3"	1-2"	
Weed Stage							1-3 YD2	1 YD2	20 YD2	20 YD2	600 YD2	50 YD2	
Weed Density, Unit							EC	AW	J MAC		WJ + JD	WJ + JD	
Assessed By													
Tri	Treatment	Rate	Product	Product	Grow	Appl							
No.	Name	Rate	Unit	Rate	Rate Unit	Stg	Code	1	2	3	4	5	6
1	Non-Treated Check							0 c	0 c	0 d	0 c	0 d	0 f
2	Autumn COC UAN 28%	0.85 1 2.5	G A/A % V/V % V/V	0.3 1 1.5	OZ/A % V/V QT/A	FALLBD FALLBD FALLBD	A A A	98 a	99 a	61 b	100 a	28 a-d	0 f
3	Autumn COC UAN 28%	1.7 1 2.5	G A/A % V/V % V/V	0.6 1 1.5	OZ/A % V/V QT/A	FALLBD FALLBD FALLBD	A A A	98 a	100 a	45 c	100 a	26 a-d	0 f
4	Autumn Princep 4FL COC UAN 28%	0.85 1 1 2.5	G A/A LB A/A % V/V % V/V	0.3 1 1 1.5	OZ/A QT/A % V/V QT/A	FALLBD FALLBD FALLBD FALLBD	A A A A	100 a	100 a	94 a	100 a	30 a-d	53 abc
5	Autumn Sencor 75DF COC UAN 28%	0.85 0.25 1 2.5	G A/A LB A/A % V/V % V/V	0.3 5.33 1 1.5	OZ/A OZ/A % V/V QT/A	FALLBD FALLBD FALLBD FALLBD	A A A A	91 b	100 a	99 a	100 a	18 a-d	25 c-f
6	Autumn Sencor 75DF COC UAN 28%	0.85 0.47 1 2.5	G A/A LB A/A % V/V % V/V	0.3 10 1 1.5	OZ/A OZ/A % V/V QT/A	FALLBD FALLBD FALLBD FALLBD	A A A A	91 b	100 a	100 a	100 a	48 a	45 bcd
7	Autumn 2,4-D Ester COC UAN 28%	0.85 0.5 1 2.5	G A/A LB A/A % V/V % V/V	0.3 1 1 1.5	OZ/A PT/A % V/V QT/A	FALLBD FALLBD FALLBD FALLBD	A A A A	100 a	100 a	98 a	100 a	10 bcd	8 f
8	Autumn Roundup WeatherMAX AMS	0.85 0.56 2.5	G A/A LB AE/A LB A/A	0.3 1 2.5	OZ/A PT/A LB/A	FALLBD FALLBD FALLBD	A A A	99 a	88 b	98 a	100 a	8 cd	15 ef
9	Roundup WeatherMAX 2,4-D Ester AMS	0.56 0.5 2.5	LB AE/A LB A/A LB A/A	1 1 2.5	PT/A PT/A LB/A	FALLBD FALLBD FALLBD	A A A	98 a	100 a	100 a	99 b	0 d	8 f
10	Basis 2,4-D Ester COC Steadfast Callisto Atrazine AMS COC	0.375 0.5 1 0.56 1 0.9 2.5 1	OZ A/A LB A/A % V/V OZ A/A OZ A/A LB A/A LB A/A % V/V	0.5 1 0.75 2 0.9 2.5 1	OZ/A PT/A % V/V OZ/A FL OZ/A QT/A LB/A % V/V	FALLBD FALLBD FALLBD V4 - V5 V4 - V5 V4 - V5 V4 - V5 V4 - V5	A A A C C C C C	100 a	100 a	98 a	100 a	30 a-d	18 def
11	Basis Karmex 80WP 2,4-D Ester COC Steadfast Callisto Atrazine AMS COC	0.25 12.8 0.5 1 0.56 1 0.9 2.5 1	OZ A/A OZ A/A LB A/A % V/V OZ A/A OZ A/A LB A/A LB A/A % V/V	0.333 16 1 1 0.75 2 0.9 2.5 1	OZ/A OZ/A PT/A % V/V OZ/A FL OZ/A QT/A LB/A % V/V	FALLBD FALLBD FALLBD FALLBD V4 - V5 V4 - V5 V4 - V5 V4 - V5 V4 - V5	A A A A C C C C C	100 a	100 a	98 a	100 a	50 a	38 b-e

# Purdue University

							TAROF	RANAB	ERICA	SENGL	SETFA	ERICA	
							EFF	EFF	EFF	EFF	EFF	EFF	
							%	%	%	%	%	%	
							27/Mar/2006	27/Mar/2006	27/Mar/2006	27/Mar/2006	17/May/2006	17/May/2006	
							NA	NA	NA	NA	V1	V1	
							4-8"	3"	1.5"	3-4"	1-3"	1-2"	
							1-3 YD2	1 YD2	20 YD2	20 YD2	600 YD2	50 YD2	
							EC	AW	J MAC		WJ + JD	WJ + JD	
Trt	Treatment	Rate	Unit	Product	Product	Grow	Appl						
No.	Name	Rate	Unit	Rate	Rate Unit	Stg	Code	1	2	3	4	5	6
12	Basis	0.25	OZ A/A	0.333	OZ/A	FALLBD	A	100 a	100 a	99 a	100 a	36 abc	61 ab
	Princep 4FL	14.4	OZ A/A	1.8	PT/A	FALLBD	A						
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A						
	COC	1	% V/V	1	% V/V	FALLBD	A						
	Steadfast	0.56	OZ A/A	0.75	OZ/A	V4 - V5	C						
	Callisto	1	OZ A/A	2	FL OZ/A	V4 - V5	C						
	Atrazine	0.9	LB A/A	0.9	QT/A	V4 - V5	C						
	AMS	2.5	LB A/A	2.5	LB/A	V4 - V5	C						
	COC	1	% V/V	1	% V/V	V4 - V5	C						
13	Princep 4FL	14.4	OZ A/A	1.8	PT/A	FALLBD	A	100 a	100 a	100 a	100 a	41 ab	79 a
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A						
	COC	1	% V/V	1	% V/V	FALLBD	A						
	Steadfast	0.56	OZ A/A	0.75	OZ/A	V4 - V5	C						
	Callisto	1	OZ A/A	2	FL OZ/A	V4 - V5	C						
	Atrazine	0.9	LB A/A	0.9	QT/A	V4 - V5	C						
	AMS	2.5	LB A/A	2.5	LB/A	V4 - V5	C						
	COC	1	% V/V	1	% V/V	V4 - V5	C						
LSD (P=.05)							5.1	7.4	11.2	1.0	32.9	29.1	
Standard Deviation							3.6	5.2	7.8	0.7	23.0	20.4	
CV							3.94	5.69	9.36	0.75	92.47	76.2	
Grand Mean							90.17	91.17	83.83	92.21	24.9	26.73	
Bartlett's X2							38.411	58.474	74.789	0.0	10.88	8.082	
P(Bartlett's X2)							0.001*	0.001*	0.001*	.	0.367	0.526	
Replicate F							1.128	0.872	1.653	1.000	1.485	3.184	
Replicate Prob(F)							0.3508	0.4648	0.1944	0.4040	0.2350	0.0353	
Treatment F							235.868	113.259	60.518	6387.667	2.148	6.524	
Treatment Prob(F)							0.0001	0.0001	0.0001	0.0001	0.0382	0.0001	

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

## Purdue University

Weed Code							ZEAME	SETFA	ERICA	TAROF	
Crop Code							Crop Injury	EFF	EFF	EFF	
Rating Data Type							%	%	%	%	
Rating Unit							17/May/2006	2/Jun/2006	2/Jun/2006	29/Jun/2006	
Rating Date							V1	V3	V3		
Crop Stage								3-5"	2-4"	9-20"	
Weed Stage								600 YD2	50 YD2	2-3 YD2	
Weed Density, Unit							WJ + JD	AW + AM	AW + AM	WGJ	
Assessed By											
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	7	8	9	10
1	Non-Treated Check							0 b	0 d	0 b	0 d
2	Autumn COC UAN 28%	0.85 1 2.5	G A/A % V/V % V/V	0.3 1 1.5	OZ/A % V/V QT/A	FALLBD FALLBD FALLBD	A A A	3 ab	86 a	0 b	76 abc
3	Autumn COC UAN 28%	1.7 1 2.5	G A/A % V/V % V/V	0.6 1 1.5	OZ/A % V/V QT/A	FALLBD FALLBD FALLBD	A A A	9 a	89 a	0 b	91 ab
4	Autumn Princep 4FL COC UAN 28%	0.85 1 1 2.5	G A/A LB A/A % V/V % V/V	0.3 1 1 1.5	OZ/A QT/A % V/V QT/A	FALLBD FALLBD FALLBD FALLBD	A A A A	4 ab	20 cd	53 b	100 a
5	Autumn Sencor 75DF COC UAN 28%	0.85 0.25 1 2.5	G A/A LB A/A % V/V % V/V	0.3 5.33 1 1.5	OZ/A OZ/A % V/V QT/A	FALLBD FALLBD FALLBD FALLBD	A A A A	5 ab	40 bc	58 b	53 c
6	Autumn Sencor 75DF COC UAN 28%	0.85 0.47 1 2.5	G A/A LB A/A % V/V % V/V	0.3 10 1 1.5	OZ/A OZ/A % V/V QT/A	FALLBD FALLBD FALLBD FALLBD	A A A A	3 ab	48 bc	214 a	53 c
7	Autumn 2,4-D Ester COC UAN 28%	0.85 0.5 1 2.5	G A/A LB A/A % V/V % V/V	0.3 1 1 1.5	OZ/A PT/A % V/V QT/A	FALLBD FALLBD FALLBD FALLBD	A A A A	5 ab	48 bc	50 b	86 ab
8	Autumn Roundup WeatherMAX AMS	0.85 0.56 2.5	G A/A LB AE/A LB A/A	0.3 1 2.5	OZ/A PT/A LB/A	FALLBD FALLBD FALLBD	A A A	3 ab	61 ab	53 b	76 abc
9	Roundup WeatherMAX 2,4-D Ester AMS	0.56 0.5 2.5	LB AE/A LB A/A LB A/A	1 1 2.5	PT/A PT/A LB/A	FALLBD FALLBD FALLBD	A A A	0 b	0 d	68 b	66 bc
10	Basis 2,4-D Ester COC Steadfast Callisto Atrazine AMS COC	0.375 0.5 1 0.56 1 0.9 2.5 1	OZ A/A LB A/A % V/V OZ A/A OZ A/A LB A/A LB A/A % V/V	0.5 1 1 0.75 2 0.9 2.5 1	OZ/A PT/A % V/V OZ/A FL OZ/A QT/A LB/A % V/V	FALLBD FALLBD FALLBD V4 - V5 V4 - V5 V4 - V5 V4 - V5 V4 - V5	A A A C C C C C	3 ab	53 abc	55 b	71 abc
11	Basis Karmex 80WP 2,4-D Ester COC Steadfast Callisto Atrazine AMS COC	0.25 12.8 0.5 1 0.56 1 0.9 2.5 1	OZ A/A OZ A/A LB A/A % V/V OZ A/A OZ A/A LB A/A LB A/A % V/V	0.333 16 1 0.75 2 0.9 2.5 1	OZ/A OZ/A PT/A % V/V OZ/A FL OZ/A QT/A LB/A % V/V	FALLBD FALLBD FALLBD V4 - V5 V4 - V5 V4 - V5 V4 - V5 V4 - V5	A A A C C C C C	0 b	64 ab	69 b	94 ab

# Purdue University

Weed Code							ZEAME	SETFA	ERICA	TAROF	
Crop Code											
Rating Data Type							Crop Injury	EFF	EFF	EFF	
Rating Unit							%	%	%	%	
Rating Date							17/May/2006	2/Jun/2006	2/Jun/2006	29/Jun/2006	
Crop Stage							V1	V3	V3		
Weed Stage								3-5"	2-4"	9-20"	
Weed Density, Unit								600 YD2	50 YD2	2-3 YD2	
Assessed By							WJ + JD	AW + AM	AW + AM	WGJ	
Trt No.	Treatment Name	Rate	Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	7	8	9	10
12	Basis	0.25	OZ A/A	0.333	OZ/A	FALLBD	A	3 ab	41 bc	75 b	83 ab
	Princep 4FL	14.4	OZ A/A	1.8	PT/A	FALLBD	A				
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A				
	COC	1	% V/V	1	% V/V	FALLBD	A				
	Steadfast	0.56	OZ A/A	0.75	OZ/A	V4 - V5	C				
	Callisto	1	OZ A/A	2	FL OZ/A	V4 - V5	C				
	Atrazine	0.9	LB A/A	0.9	QT/A	V4 - V5	C				
	AMS	2.5	LB A/A	2.5	LB/A	V4 - V5	C				
	COC	1	% V/V	1	% V/V	V4 - V5	C				
13	Princep 4FL	14.4	OZ A/A	1.8	PT/A	FALLBD	A	5 ab	30 bcd	90 ab	90 ab
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A				
	COC	1	% V/V	1	% V/V	FALLBD	A				
	Steadfast	0.56	OZ A/A	0.75	OZ/A	V4 - V5	C				
	Callisto	1	OZ A/A	2	FL OZ/A	V4 - V5	C				
	Atrazine	0.9	LB A/A	0.9	QT/A	V4 - V5	C				
	AMS	2.5	LB A/A	2.5	LB/A	V4 - V5	C				
	COC	1	% V/V	1	% V/V	V4 - V5	C				
LSD (P=.05)							6.3	37.6	131.3	29.6	
Standard Deviation							4.4	26.3	91.9	20.7	
CV							143.41	59.06	152.47	28.72	
Grand Mean							3.08	44.56	60.25	72.13	
Bartlett's X2							0.999	9.676	74.838	12.595	
P(Bartlett's X2)							0.999	0.469	0.001*	0.247	
Replicate F							4.477	0.918	0.995	1.856	
Replicate Prob(F)							0.0090	0.4418	0.4064	0.1545	
Treatment F							1.263	4.447	1.419	6.419	
Treatment Prob(F)							0.2815	0.0002	0.2023	0.0001	

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