
WEED SCIENCE

2012 Annual Research Report

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Introduction

Louisiana can be divided into several areas based on cropping systems, climatic conditions, soil types, and pH. These factors are important in selecting specific herbicides and rates and can directly affect herbicide efficacy, crop safety, and injury to rotational crops. South Louisiana has an abundance of weed species, some not commonly found in other areas of the state. Climatic conditions are favorable for prolific weed growth and subsequent competition with crops. Weed control programs including mechanical cultivation, crop rotation, and herbicides are used, but herbicides serve as the foundation for weed control programs. Steady progress has been made in the development of effective herbicides with crop safety. Research and extension personnel with the LSU AgCenter work cooperatively with agri-chemical companies to evaluate new herbicides and herbicide resistant crops for weed control and crop tolerance.

This progress report summarizes weed research conducted in sugarcane and soybeans during the 2011-2012 growing season. Results of herbicide efficacy and crop tolerance studies are presented. Results are preliminary since evaluation of some of the herbicides is limited. Data presented in this report should not be considered as an endorsement or recommendation of any herbicide and should not be reproduced without permission. Registration by the Environmental Protection Agency is required before any herbicide can be legally used.

Rainfall data for the 2012 growing season are shown in Tables 1 (Ben Hur Research Farm) and 2 (Sugar Research Station). Herbicides and adjuvants evaluated are presented in Table 3. Weed species evaluated for control are presented in Table 4. Specific information on location, soil type, variety, row spacing, treatment date, sprayer type, etc. is presented for each experiment followed by a table of experimental results. Data were summarized and statistically analyzed using Agriculture Research Manager (ARM) by Gylling Data Management, Inc., Brookings, South Dakota. Control and crop injury ratings for all experiments are based on a scale of 0 to 100%, where 0 equals no control or crop injury and 100% equals complete control or crop injury. Injury ratings are based on chlorosis, necrosis, and stand and height reductions. Where appropriate, crop yields were obtained. Soybean and corn yields are adjusted to 13% and 15% moisture respectively. Miscellaneous abbreviations used in this report are shown in Table 5.

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BASF
Dow AgroSciences
DuPont
Gowan Company
Helena Chemical Company
Monsanto Company
UPI

Table 1. Rainfall for the 2012 growing season (March - September) at the Central Station, Ben Hur Research Farm, Baton Rouge, LA.

Day	Month						
	March	April	May	June	July	August	September
	inches						
1	-	-	0.01	-	-	-	-
2	0.02	0.43	2.68	-	-	-	-
3	0.33	-	0.02	-	-	-	-
4	-	1.36	-	-	0.23	0.12	-
5	-	-	0.04	0.82	-	1.24	-
6	-	-	0.07	2.17	0.17	0.17	0.01
7	-	-	0.34	1.38	0.28	-	-
8	-	-	-	0.11	1.91	-	-
9	0.31	-	-	0.01	-	0.61	-
10	-	-	-	0.21	0.23	0.01	-
11	0.26	0.83	0.29	-	0.19	0.42	-
12	1.32	-	0.52	0.57	0.43	0.01	-
13	-	-	-	-	0.14	-	-
14	-	-	-	0.05	0.01	-	-
15	-	-	-	1.11	0.19	-	-
16	0.01	0.95	-	-	-	-	0.17
17	-	0.27	-	-	0.01	0.12	1.16
18	-	-	-	0.57	0.67	1.71	0.01
19	-	-	-	0.01	0.21	1.15	-
20	0.05	-	-	-	1.06	0.01	-
21	3.39	0.26	-	-	0.10	-	-
22	0.39	-	-	-	-	-	-
23	-	-	-	-	0.03	-	-
24	-	-	-	0.31	-	0.26	-
25	-	-	-	-	0.13	0.36	-
26	-	-	-	-	0.29	0.17	-
27	0.01	-	-	-	0.97	0.01	0.02
28	-	-	-	-	-	-	0.11
29	0.01	0.02	-	-	-	5.19	0.44
30	0.67	-	-	0.02	-	0.63	1.28
31	-		0.21		-	1.46	
Total	6.77	4.12	4.18	7.34	7.25	13.65	3.20

Table 2. Rainfall for the 2012 growing season (March - September) at the Sugar Research Station, St. Gabriel, LA.

Day	Month						
	March	April	May	June	July	August	September
	inches						
1	-	-	-	-	-	-	-
2	0.03	0.39	2.47	-	-	-	0.01
3	0.23	0.01	0.01	-	-	-	-
4	-	2.83	-	-	-	0.01	-
5	-	0.01	-	-	-	0.01	-
6	-	-	0.01	0.35	0.01	0.44	-
7	-	-	0.88	0.16	0.08	0.01	0.01
8	-	-	0.01	0.01	0.38	0.15	-
9	0.20	-	-	0.42	0.01	0.48	-
10	-	-	-	0.44	0.46	-	-
11	0.05	0.40	0.26	-	0.44	0.41	-
12	1.64	-	0.18	0.29	0.32	-	0.11
13	0.01	-	0.01	-	0.07	-	0.06
14	-	-	-	0.09	0.01	-	-
15	-	-	-	1.24	0.04	0.06	-
16	-	0.57	0.18	0.01	-	0.04	-
17	0.01	0.57	0.01	0.43	-	-	1.12
18	-	0.01	-	0.43	1.07	1.38	-
19	-	-	-	-	0.99	3.00	-
20	0.06	-	-	-	1.48	0.04	-
21	2.94	0.01	-	-	0.56	0.01	-
22	0.60	-	-	-	-	-	-
23	-	-	-	-	0.29	-	-
24	-	-	-	0.04	-	1.40	-
25	-	-	-	-	0.10	1.63	-
26	-	-	-	-	0.50	0.01	-
27	-	0.01	-	-	0.60	-	0.03
28	-	-	-	-	0.01	-	0.09
29	0.21	-	-	-	-	5.30	0.53
30	0.04	-	-	-	-	0.69	0.72
31	-		0.04		-	1.08	
Total	6.02	4.81	4.06	3.91	7.42	16.15	2.68

Table 3. Herbicides and adjuvants evaluated in soybeans and sugarcane.

Trade name	Common name	Manufacturer
2, 4-D Amine 4	2,4-D dimethylamine salt	Nufarm
2,4-D Ester	2,4-D ester	-
Aatrex	atrazine	Syngenta
Accent	nicosulfuron	DuPont
Agridex	crop oil concentrate	Helena
Ammonium sulfate	-	AmericanPlant FoodCorp.
Anthem	atrazine + pyroxasulfone + fluthiacet-methyl	FMC
Asulox, Asulox XP	asulam	UPI
Atrazine	atrazine	DuPont
Authority MTZ	sulfentrazone + metribuzin	FMC
Bicep II Magnum	metolachlor + atrazine	Syngenta
Boundary	metolachlor + metribuzin	Syngenta
Brash	2,4-D + dicamba	Winfield Solutions
Cadet	fluthiacet	FMC
Callisto	mesotrione	Syngenta
Canopy DF	chlorimuron + metribuzin	DuPont
Canopy EX	chlorimuron-ethyl + tribenuron-methyl	DuPont
Capreno	tembotrione + thienicarbazone-methyl	Bayer Crop Science
Cinch	s-metolachlor	DuPont
Cinch ATZ	atrazine + S-metolachlor	DuPont
Clarity	dicamba	BASF
Classic	chlorimuron-ethyl	DuPont
Command	clomazone	FMC

Continued.

Table 3. Continued.

Trade name	Common name	Manufacturer
Corvus	isoxaflutole + thien carbazon e-methyl	Bayer Crop Science
Diligent	rimsulfuron + chlorimuron + flumioxazin	DuPont
Direx	diuron	Griffin
Diuron	diuron	Agrisolutions
Distinct	diflufenzopyr + dicamba	BASF
Dual Magnum	S-metolachlor	Syngenta
Dual II Magnum	S-metolachlor	Syngenta
DuPont K4	hexazinone + diuron	Syngenta
Enlite	chlorimuron + flumioxazin + thifensulfuron	DuPont
Envive	chlorimuron + flumioxazin + thifensulfuron	DuPont
Envoke	trifloxysulfuron – sodium	Syngenta
Eptam	EPTC	Gowan
Evik	ametryn	Syngenta
Express XP	tribenuron	Dupont
Fierce	flumioxazin + pyroxasulfone	Valent USA
FirstRate	cloransulam	Dow Agrosiences
Flexstar	fomesafen	Syngenta
Flexstar GT	glyphosate + fomesafen	Syngenta
Gangster FR	cloransulam-methyl	FMC
Gangster V	flumioxazin	FMC
Gramoxone Inteon	paraquat	Syngenta
Halex GT	S-metolachlor + glyphosate + mesotrione	Syngenta
Harmony GT	thifensulfuron	Dupont

Continued.

Table 3. Continued.

Trade name	Common name	Manufacturer
Harness Extra	acetochlor + atrazine	Monsanto
Huskie	pyrasulfotole + bromoxinil	Bayer Crop Science
Ignite 280	glufosinate	Bayer Crop Science
Induce	nonionic surfactant	Helena
Karmex	diuron	DuPont
Karmex XP	diuron	DuPont
Latigo	2,4-D + dicamba (acid)	Helena
Laudis	tembotrione	Bayer CropScience
Lexar	S-metolachlor + atrazine + mesotrione	Syngenta
Lumax	metolachlor + atrazine + mesotrione	Syngenta
Metri DF	metribuzin	UPI
Metribuzin	metribuzin	MANA,LovelandProducts
Nicosulfuron	nicosulfuron	DuPont
Palisade	trinexapac ethyl	Syngenta
Permit	halosulfuron	Gowan
Prefix	metolachlor + fomesafen	Syngenta
Prowl/Prowl H ₂ O	pendimethalin	BASF
Quest	ammonium sulfate	Helena
Resource	flumiclorac	Valent USA
Rimsulfuron	rimsulfuron	DuPont
Roundup OriginalMax	glyphosate	Monsanto
Roundup PowerMax	glyphosate	Monsanto
Roundup WeatherMax	glyphosate	Monsanto

Continued.

Table 3. Continued.

Trade name	Common name	Manufacturer
Select 2EC	clethodim	Valent USA
Select Max	clethodim	Valent USA
Sencor	metribuzin	Bayer CropScience
Sequence	glyphosate + metolachlor	Syngenta
Sharpen	saflufenacil	BASF
Sinbar	terbacil	DuPont
SL-160	flazasulfuron	ISK Biosciences
Sodium Chlorate	-	Helena
Spartan	sulfentrazone	FMC
Synchrony XP	chlorimuron + thifensulfuron	Dupont
Touchdown	glyphosate	Syngenta
Touchdown Total	glyphosate	Syngenta
Treflan	trifluralin	Dow AgroSciences
Ultra Blazer	acifluorfen	United Phosphorus Inc.
Unison	2,4-D acid	Helena
Valor SX	flumioxazin	Valent USA
Valor XLT	flumioxazin + chlorimuron ethyl	Valent USA
Velpar	hexazinone	DuPont
Verdict	saflufenacil + dimethenamid-P	BASF
Warrant	acetochlor (encapsulated)	Monsanto
Weedar 64	2,4-D dimethylamine salt	Nufarm
Weedmaster	2,4-D + dicamba	Nufarm
Yukon	halosulfuron + dicamba	Gowan
Zidua	pyroxasulfone	BASF

Table 4. Bayer codes and scientific names of weed species evaluated.

Common name	WSSA abbreviation	Scientific name
Amaranth	AMASS	<i>Amaranthus</i> species
annual bluegrass	POAAN	<i>Poa annua</i> L.
annual sedge	CYPCP	<i>Cyperus compressus</i> L.
barnyardgrass	ECHCG	<i>Echinochloa crus-galli</i> (L.) Beauv.
bermudagrass	CYNDA	<i>Cynodon dactylon</i> (L.) Pers.
broadleaf signalgrass	BRAPP	<i>Brachiaria platyphylla</i> (Griseb.) Nash
buttercup species	RANSS	<i>Ranunculus</i> species
carpetweed	MOLVE	<i>Mollugo verticillata</i> L.
Carolina geranium	GERCA	<i>Geranium carolinianum</i> L.
common purslane	POROL	<i>Portulacca oleracea</i> L.
curly dock	RUMCR	<i>Rumex crispus</i> L.
cutleaf eveningprimrose	OEOLA	<i>Oenothera laciniata</i> Hill
cutleaf groundcherry	PHYAN	<i>Physalis angulata</i> L.
entireleaf morningglory	IPOHG	<i>Ipomoea hederacea</i> var. <i>integriuscula</i> Gray
fall panicum	PANDI	<i>Panicum dichotomiflorum</i> Michx.
foxtail	SETSP	<i>Setaria</i> species
goosegrass	ELEIN	<i>Eleusine indica</i>
groundcherry	PHYSS	<i>Physalis</i> species
henbit	LAMAM	<i>Lamium amplexicaule</i> L.
hemp sesbania	SEBEX	<i>Sesbania exaltata</i> (Raf.) Rybd. ex A. W. Hill
hophornbeam copperleaf	ACCOS	<i>Acalypha ostryifolia</i> Riddell
itchgrass	ROOEX	<i>Rottboellia cochinchinensis</i> (Lour.) Clayton
ivyleaf morningglory	IPOHE	<i>Ipomoea hederacea</i> (L.) Jacq.
johnsongrass	SORHA	<i>Sorghum halepense</i> (L.) Pers.

Continued.

Table 4. Continued.

Common name	WSSA abbreviation	Scientific name
large crabgrass	DIGSA	<i>Digitaria sanguinalis</i> (L.) Scop.
little barley	HORPU	<i>Hordeum pusillum</i> Nuttall.
medicago (clover)	MEDSS	<i>Medicago</i> species
morningglory species	IPOSS	<i>Ipomoea</i> species
mouseear chickweed	CERVU	<i>Cerastium vulgatum</i> L.
nutsedge	CYPSS	<i>Cyperus</i> species
pitted morningglory	IPOLA	<i>Ipomoea lacunosa</i> L.
prickly sida	SIDSP	<i>Sida spinosa</i> L.
purple nutsedge	CYPRO	<i>Cyperus rotundus</i> L.
purslane speedwell	VERPG	<i>Veronica peregrina</i> L.
red morningglory	IPOCC	<i>Ipomoea coccinea</i> L.
red sprangletop	LEFFI	<i>Leptochloa panicea</i> (Retz.) Ohwi
redweed	MEOCO	<i>Melochia corchorifolia</i> L.
ryegrass, Italian	LOLMU	<i>Lolium perenne</i> L. ssp. <i>Multiflorum</i> (Lam.) Husnot
shepherd's-purse	CAPBP	<i>Capsella bursa-pastoris</i> (L.) Medicus
sicklepod	CASOB	<i>Senna obtusifolia</i> L.
smallflower bittercress	CARPA	<i>Cardamine parviflora</i> L.
smallflower morningglory	IAQTA	<i>Jacquemontia tamnifolia</i> (L.) Griseb.
smellmelon	CUMMD	<i>Cucumis melo</i> L. var. <i>dudaim</i> Naud.
spiny sowthistle	SONAS	<i>Sonchus asper</i> (L.) Hill
spotted burclover	MEDAB	<i>Medicago arabica</i> (L.) Huds.
spotted spurge	EPHMA	<i>Chamaesyce maculata</i> (L.) Small
spreading dayflower	COMDI	<i>Commelina diffusa</i> Burm. f.

Continued.

Table 4. Continued.

Common name	WSSA abbreviation	Scientific name
velvetleaf	ABUTH	<i>Abutilon theophrasti</i> Medik.
Virginia pepperweed	LEPVI	<i>Lepidium virginicum</i> L.
white clover	TRFRE	<i>Trifolium repens</i> L.
wild poinsettia	EPHHL	<i>Euphorbia heterophylla</i> L.
yellow nutsedge	CYPES	<i>Cyperus esculentus</i> L.

Table 5. Miscellaneous abbreviations used in the weed control studies.

ai/A	Active ingredient per acre
Amt	Amount
AS	Aqueous solution
AP	After planting
Bdcst	Broadcast application
bu/A	Bushels per acre
B/L	Broadleaf species
CEC	Cation Exchange Capacity
CO ₂ bkpk	CO ₂ -pressurized backpack sprayer
col	Collar
cot	Cotyledon
CV	Coefficient of variation
DAP	Days after planting
DAT	Days after treatment
DBP	Days before planting
DF	Dry flowable
DG	Dispersible granule
EC	Emulsifiable concentrate
F	Flowable
fb	Followed by
FF	Flat fan nozzle
Fm	Formulation
G	Granular
GPA	Gallons per acre
gr cover	Ground cover
Grow stg	Growth stage
ht	Height
ht/collr	Height to top visible collar
ht/lleaf	Height to tip of longest leaf
ht:node	Height to node ratio
in/col	Inches to last visible collar
in/lftp	Inches to tip of longest leaf
lbs	Pounds

Continued.

Table 5. Continued.

lb/A	Pounds of product per acre
lb ae/A	Pounds of acid equivalent per acre
lb ai/A	Pounds active ingredient per acre on broadcast basis
lb/bu	Pounds per bushel
lf	Leaf
L	Liquid
LSD	Least significant difference
ME	Micro-encapsulated
# noz	Number of nozzels
N/A	Not applicable
NAWF	Nodes above white flower
N/S/E/W	North/South/East/West (wind direction)
OM	Organic matter
oz/A	Ounces product per acre
p. cloudy	Partly cloudy
PDIR	Postemergence directed
plnt	Plant
popltn	Population
POST (x)	Postemergence overtop application (first, second, etc.
PPBD	Preplant burndown
PPI	Preplant soil incorporated
pr/A	Product per acre
PRE	Preemergence surface application
psi	Pounds per square inch pressure
R (x)	Refers to soybean growth stage e.g. R3=reproductive with one pod 3/16 of an inch long in the upper four nodes; corn growth stage R3=reproductive (milk stage) with kernel yellow on outside and milky white on inside
rep	Replication
SC	Soluble concentration
sq	Square
std	Standard
til	Tillers
trctrCA	Tractor compressed air
TRS	Theoretical recoverable sugar

Continued.

Table 5. Continued.

Trt No	Treatment number
TT	Turbo TeeJet
V (x)	Refers to soybean growth stage e.g. V4=vegetative with 3 fully expanded trifoliate leaves; corn growth stage e.g. V4=vegetative with 4 visible collars
VS	VisiFlow
v/v	Volume/volume basis
vin	Vining
WAE	Weeks after emergence
WAT	Weeks after treatment
WBP	Weeks before planting
WG	Water dispersible granule
WP	Wettable powder
wt/p	Weight per plant
wt/st	Weight per stem
w/w	Weight/weight basis
% emerg.	Percent panicle emergence

Nutsedge Control in Plant Cane – Fall Application
LSU AgCenter
 School of Plant, Environmental, and Soil Sciences

Experiment number : 11SC07JG
 Location..... : Plaquemine, LA
 Experimental design : Randomized Complete Block
 Number of reps : 4
 Plot size : 18' x 100'
 Row width/# per plot : 72"/3
 Soil type..... : N/A
 OM (%)..... : N/A
 pH : N/A
 Planting date : N/A
 Harvest date : N/A
 Crop/Variety : Sugarcane/N/A
 Uniform std. treatment..... : Sencor 2.0 lb/A at planting in August

Application type : POST A
 Date applied (mm-dd-yy) : 10-18-11
 Time (hh:mm-hh:mm) : 1:15-2:10pm
 Incorporation equipment..... : N/A
 Incorporation depth..... : N/A
 Air/Soil temperature (F) : 72/78
 Wind (mph/direction) : 5-6/N
 Relative humidity (%) : 72
 Soil/Leaf surface moist..... : moist/moist
 Crop stage/height : 5-7lf/20-28"
 Sprayer type/mph..... : CO₂bkpk/3.0
 Nozzle type/size..... : FF/11002VS
 Boom ht/#noz/spacing (in) : 18"/4/18"
 GPA/psi (at nozzle) : 15/28
 Applied by : Bauerle

Weed species : population per ft²/height/# leaves
 CYPRO..... : 0-1/3-4"/4-6

Rainfall (in.)
 0-24 hr/1-3 days..... : 0.00/0.00
 4-7 days/2nd week..... : 0.05/0.19
 3rd week/4th week..... : 1.14/0.42

Comments:

School of Plant, Environmental, and Soil Sciences

Nutsedge Control in Plant Cane - Fall Application

Trial ID: 11SC07JG
 Location: Plaquemine, LA
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type										W Weed		W Weed
Pest Code										CYPRO		CYPRO
Pest Scientific Name										Cyperus rotund>		Cyperus rotund>
Pest Name										Purple nutsedge		Purple nutsedge
Crop Code										CANE		
Rating Date										Nov/1/2011	Nov/1/2011	Nov/15/2011
Rating Type										Control	Injury	Control
Rating Unit										%	%	%
Trt No.	Treatment Name	Form Conc	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	Permit Induce	75	0.047 0.25	lb ai/a % v/v	1 0.25	oz wt/a % v/v	POST	A	29b		3b	63a
2	Permit Induce	75	0.0623 0.25	lb ai/a % v/v	1.33 0.25	oz wt/a % v/v	POST	A	35b		5b	68a
3	Yukon Induce	67.5	0.253 0.25	lb ai/a % v/v	6 0.25	oz wt/a % v/v	POST	A	33b		0b	67a
4	Yukon Induce	67.5	0.337 0.25	lb ai/a % v/v	8 0.25	oz wt/a % v/v	POST	A	35b		0b	65a
5	Authority MTZ Induce	45	0.506 0.25	lb ai/a % v/v	18 0.25	oz wt/a % v/v	POST	A	60a		39a	58a
6	Authority MTZ Induce	45	0.675 0.25	lb ai/a % v/v	24 0.25	oz wt/a % v/v	POST	A	55a		38a	59a
7	Authority MTZ Induce	45	0.84 0.25	lb ai/a % v/v	30 0.25	oz wt/a % v/v	POST	A	60a		36a	61a
8	Envoke Induce	75	0.007 0.25	lb ai/a % v/v	0.15 0.25	oz wt/a % v/v	POST	A	29b		0b	60a
9	Envoke Induce	75	0.0094 0.25	lb ai/a % v/v	0.2 0.25	oz wt/a % v/v	POST	A	33b		0b	56a
10	Envoke Induce	75	0.014 0.25	lb ai/a % v/v	0.3 0.25	oz wt/a % v/v	POST	A	35b		5b	66a
11	Nontreated								0c		0b	0b

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Nutsedge Control in Plant Cane - Fall Application

Trial ID: 11SC07JG
 Location: Plaquemine, LA
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed		W Weed
Pest Code	CYPRO		CYPRO
Pest Scientific Name	Cyperus rotund>		Cyperus rotund>
Pest Name	Purple nutsedge		Purple nutsedge
Crop Code		CANE	
Rating Date	Nov/1/2011	Nov/1/2011	Nov/15/2011
Rating Type	Control	Injury	Control
Rating Unit	%	%	%
LSD (P=.05)	8.2	4.7	7.4
Standard Deviation	5.7	3.3	5.1
CV	15.48	28.91	9.08
Bartlett's X2	4.454	1.788	3.592
P(Bartlett's X2)	0.879	0.878	0.936
Skewness	-0.2686	1.0131*	-2.4591*
Kurtosis	0.2218	-0.8046	5.2652*
Replicate F	0.260	5.053	0.734
Replicate Prob(F)	0.8538	0.0060	0.5398
Treatment F	36.627	105.884	55.712
Treatment Prob(F)	0.0001	0.0001	0.0001

School of Plant, Environmental, and Soil Sciences

Nutsedge Control in Plant Cane - Fall Application

Trial ID: 11SC07JG
 Location: Plaquemine, LA
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed
Pest Code	CYPRO
Pest Scientific Name	Cyperus rotund>
Pest Name	Purple nutsedge
Crop Code	CANE
Rating Date	Nov/15/2011
Rating Type	Injury
Rating Unit	%

Trt No.	Treatment Name	Form Conc	Rate Rate	Other Unit	Other Rate	Growth Unit	Appl Stage	Code			
1	Permit Induce	75	0.047	lb ai/a 1	oz wt/a 0.25	POST	A	3bc	55a	0a	
2	Permit Induce	75	0.0623	lb ai/a 1.33	oz wt/a 0.25	POST	A	1bc	68a	0a	
3	Yukon Induce	67.5	0.253	lb ai/a 6	oz wt/a 0.25	POST	A	0c	64a	0a	
4	Yukon Induce	67.5	0.337	lb ai/a 8	oz wt/a 0.25	POST	A	0c	56a	0a	
5	Authority MTZ45 Induce	0.506	0.25	lb ai/a 18	oz wt/a 0.25	POST	A	25a	53a	0a	
6	Authority MTZ45 Induce	0.675	0.25	lb ai/a 24	oz wt/a 0.25	POST	A	25a	59a	0a	
7	Authority MTZ45 Induce	0.84	0.25	lb ai/a 30	oz wt/a 0.25	POST	A	25a	53a	0a	
8	Envoke Induce	75	0.007	lb ai/a 0.15	oz wt/a 0.25	POST	A	3bc	44a	0a	
9	Envoke Induce	75	0.0094	lb ai/a 0.2	oz wt/a 0.25	POST	A	3bc	60a	0a	
10	Envoke Induce	75	0.014	lb ai/a 0.3	oz wt/a 0.25	POST	A	9b	55a	0a	
11	Nontreated							0c	0b	0a	

School of Plant, Environmental, and Soil Sciences

Nutsedge Control in Plant Cane - Fall Application

Trial ID: 11SC07JG
 Location: Plaquemine, LA
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed		
Pest Code	CYPRO		
Pest Scientific Name	Cyperus rotund>		
Pest Name	Purple nutsedge		
Crop Code	CANE		CANE
Rating Date	Nov/15/2011	Mar/19/2012	Mar/19/2012
Rating Type	Injury	Control	Injury
Rating Unit	%	%	%
LSD (P=.05)	5.4	24.2	0.0
Standard Deviation	3.7	16.8	0.0
CV	44.22	32.63	0.0
Bartlett's X2	2.386	7.874	0.0
P(Bartlett's X2)	0.881	0.547	.
Skewness	0.8186*	-0.5969	.
Kurtosis	-1.0522	0.2591	.
Replicate F	1.151	1.866	0.000
Replicate Prob(F)	0.3448	0.1566	1.0000
Treatment F	34.545	4.688	0.000
Treatment Prob(F)	0.0001	0.0005	1.0000

Bermudagrass Herbicide Application Timing Spring Test
LSU AgCenter
School of Plant, Environmental, and Soil Sciences

Experiment number : 12SC01JG
Location..... : Ronald Hebert Farms – Jeanerette, LA
Experimental design : Randomized Complete Block
Number of reps : 2
Plot size : 18' x 100'
Row width/# per plot : 72"/3
Soil type..... : N/A
OM (%)..... : N/A
pH : N/A
Planting date : N/A
Harvest date..... : N/A
Crop/Variety : Sugarcane/N/A
Uniform std. treatment..... : N/A

Application type	POST A	POST B	POST C
Date applied (mm-dd-yy)	2-22-12	3-7-12	3-27-12
Time (hh:mm-hh:mm)	12:00-12:45pm	11:30-12:00	10:00-10:30am
Incorporation equipment.....	N/A	N/A	N/A
Incorporation depth.....	N/A	N/A	N/A
Air/Soil temperature (F)	72/62	76/65	75/71
Wind (mph/direction)	10-14/S	6-8/S	1-2/E
Relative humidity (%)	84	60	76
Soil/Leaf surface moist.....	moist/dry	moist/dry	moist/moist
Crop stage/height.....	4-5lf/12-14"	5-7lf/10-15"	4-8lf/25-30"
Sprayer type/mpg.....	CO ₂ bkipk/3.0	CO ₂ bkipk/3.0	CO ₂ bkipk/3.0
Nozzle type/size.....	FF/11002VS	FF/TTI11002	FF/TTI11002
Boom ht/#noz/spacing (in)	18"/4/18"	15"/4/18"	15"/4/18"
GPA/psi (at nozzle)	15/28	15/28	15/28
Applied by	Bauerle	Bauerle	Bauerle

Weed species	% ground cover/stolon length		
CYNDA.....	40-50%/3-8" runners	50-60%/3-12" runners	40-60%/12-15" runners

Rainfall (in.)
0-24 hr/1-3 days..... : -- / --
4-7 days/2nd week..... : -- / --
3rd week/4th week..... : -- / --

Comments:
Rainfall was received within five days after POST A treatment.

School of Plant, Environmental, and Soil Sciences

Bermudagrass Herbicide Application Timing Spring Test

Trial ID: 12SC01JG
 Location: Ronald Herbert Farms
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

										W Weed		W Weed	
										CYNDA		CYNDA	
										Cynodon dactyl>		Cynodon dactyl>	
										Bermuda grass		Bermuda grass	
										CANE		CANE	
										Mar/27/2012	Mar/27/2012	Apr/9/2012	Apr/9/2012
										Control	Injury	Control	Injury
										%	%	%	%
Trt	Treatment	Form	Rate	Rate	Other	Other	Growth	Appl					
No.	Name	Conc	Unit	Unit	Rate	Rate	Stage	Code					
1	Sencor	75	2.25	lb ai/a	3	lb/a	2/15/11	A	40a	0c	40b	0c	
2	Command	3	1.13	lb ai/a	3	pt/a	2/15/11	A	68a	25a	48b	15bc	
	Direx	4	2.5	lb ai/a	2.5	qt/a	2/15/11	A					
3	Prowl	3.3	1.65	lb ai/a	2	qt/a	2/15/11	A	48a	5c	43b	0c	
	Sencor	75	2.25	lb ai/a	3	lb/a	2/15/11	A					
4	Command	3	1.13	lb ai/a	3	pt/a	2/15/11	A	45a	20b	38b	10bc	
	Sencor	75	0.75	lb ai/a	1	lb/a	2/15/11	A					
5	Sencor	75	2.25	lb ai/a	3	lb/a	3/1/11	B	43a	0c	40b	0c	
6	Command	3	1.13	lb ai/a	3	pt/a	3/1/11	B	58a	28a	50b	13bc	
	Direx	4	2.5	lb ai/a	2.5	qt/a	3/1/11	B					
7	Prowl	3.3	1.65	lb ai/a	2	qt/a	3/1/11	B	35a	5c	38b	0c	
	Sencor	75	2.25	lb ai/a	3	lb/a	3/1/11	B					
8	Command	3	1.13	lb ai/a	3	pt/a	3/1/11	B	48a	18b	43b	8c	
	Sencor	75	0.75	lb ai/a	1	lb/a	3/1/11	B					
9	Sencor	75	2.25	lb ai/a	3	lb/a	3/15/11	C			48b	0c	
10	Command	3	1.13	lb ai/a	3	pt/a	3/15/11	C			70a	43a	
	Direx	4	2.5	lb ai/a	2.5	qt/a	3/15/11	C					
11	Prowl	3.3	1.65	lb ai/a	2	qt/a	3/15/11	C			53b	0c	
	Sencor	75	2.25	lb ai/a	3	lb/a	3/15/11	C					
12	Command	3	1.13	lb ai/a	3	pt/a	3/15/11	C			70a	25b	
	Sencor	75	0.75	lb ai/a	1	lb/a	3/15/11	C					

School of Plant, Environmental, and Soil Sciences

Bermudagrass Herbicide Application Timing Spring Test

Trial ID: 12SC01JG
 Location: Ronald Herbert Farms
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed		W Weed	
Pest Code	CYNDA		CYNDA	
Pest Scientific Name	Cynodon dactyl>		Cynodon dactyl>	
Pest Name	Bermuda grass		Bermuda grass	
Crop Code	CANE		CANE	
Rating Date	Mar/27/2012	Mar/27/2012	Apr/9/2012	Apr/9/2012
Rating Type	Control	Injury	Control	Injury
Rating Unit	%	%	%	%
LSD (P=.05)	21.9	3.9	13.9	11.1
Standard Deviation	9.2	1.6	6.3	5.0
CV	19.34	13.09	13.09	53.64
Bartlett's X2	4.04	0.0	3.056	1.101
P(Bartlett's X2)	0.775	.	0.98	0.777
Skewness	1.085	0.1739	0.902	1.6317*
Kurtosis	1.1273	-1.7239	-0.0317	2.5419*
Replicate F	0.164	2.333	1.286	0.371
Replicate Prob(F)	0.6972	0.1705	0.2808	0.5549
Treatment F	2.483	94.667	6.422	13.764
Treatment Prob(F)	0.1266	0.0001	0.0023	0.0001

School of Plant, Environmental, and Soil Sciences

Bermudagrass Herbicide Application Timing Spring Test

Trial ID: 12SC01JG
 Location: Ronald Herbert Farms
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type							W Weed		W Weed	
Pest Code							CYNDA		CYNDA	
Pest Scientific Name							Cynodon dactyl>		Cynodon dactyl>	
Pest Name							Bermuda grass		Bermuda grass	
Crop Code							CANE		CANE	
Rating Date							Apr/24/2012	Apr/24/2012	May/8/2012	May/8/2012
Rating Type							Control	Injury	Control	Injury
Rating Unit							%	%	%	%
Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	Sencor	75	2.25 lb ai/a 3		lb/a	2/15/11 A	45a	0a	68a	0a
2	Command 3 Direx	4	1.13 lb ai/a 3 2.5 lb ai/a 2.5		pt/a qt/a	2/15/11 A 2/15/11 A	48a	13a	63a	13a
3	Prowl Sencor	3.3 75	1.65 lb ai/a 2 2.25 lb ai/a 3		qt/a lb/a	2/15/11 A 2/15/11 A	45a	0a	63a	0a
4	Command 3 Sencor	3 75	1.13 lb ai/a 3 0.75 lb ai/a 1		pt/a lb/a	2/15/11 A 2/15/11 A	40a	0a	48a	10a
5	Sencor	75	2.25 lb ai/a 3		lb/a	3/1/11 B	50a	0a	50a	0a
6	Command 3 Direx	4	1.13 lb ai/a 3 2.5 lb ai/a 2.5		pt/a qt/a	3/1/11 B 3/1/11 B	45a	5a	63a	13a
7	Prowl Sencor	3.3 75	1.65 lb ai/a 2 2.25 lb ai/a 3		qt/a lb/a	3/1/11 B 3/1/11 B	38a	8a	45a	0a
8	Command 3 Sencor	3 75	1.13 lb ai/a 3 0.75 lb ai/a 1		pt/a lb/a	3/1/11 B 3/1/11 B	45a	8a	53a	5a
9	Sencor	75	2.25 lb ai/a 3		lb/a	3/15/11 C	48a	5a	58a	0a
10	Command 3 Direx	4	1.13 lb ai/a 3 2.5 lb ai/a 2.5		pt/a qt/a	3/15/11 C 3/15/11 C	40a	18a	48a	18a
11	Prowl Sencor	3.3 75	1.65 lb ai/a 2 2.25 lb ai/a 3		qt/a lb/a	3/15/11 C 3/15/11 C	35a	8a	48a	0a
12	Command 3 Sencor	3 75	1.13 lb ai/a 3 0.75 lb ai/a 1		pt/a lb/a	3/15/11 C 3/15/11 C	43a	15a	53a	5a

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Bermudagrass Herbicide Application Timing Spring Test

Trial ID: 12SC01JG
 Location: Ronald Herbert Farms
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed		W Weed	
Pest Code	CYNDA		CYNDA	
Pest Scientific Name	Cynodon dactyl>		Cynodon dactyl>	
Pest Name	Bermuda grass		Bermuda grass	
Crop Code	CANE		CANE	
Rating Date	Apr/24/2012	Apr/24/2012	May/8/2012	May/8/2012
Rating Type	Control	Injury	Control	Injury
Rating Unit	%	%	%	%
LSD (P=.05)	10.1	14.1	13.6	9.7
Standard Deviation	4.6	6.4	6.2	4.4
CV	10.63	99.38	11.33	84.18
Bartlett's X2	1.465	1.924	4.428	1.505
P(Bartlett's X2)	0.984	0.927	0.881	0.826
Skewness	0.0814	0.4001	0.7021	1.1694*
Kurtosis	-1.4183	-1.7054	-0.2012	0.9585
Replicate F	0.786	0.228	0.109	1.355
Replicate Prob(F)	0.3944	0.6427	0.7476	0.2691
Treatment F	1.857	1.791	3.020	4.192
Treatment Prob(F)	0.1597	0.1741	0.0401	0.0127

Bermudagrass Spring Test
LSU AgCenter
School of Plant, Environmental, and Soil Sciences

Experiment number : 12SC02JG
Location..... : Ricky Roussel Farms – Vacherie, LA
Experimental design : Randomized Complete Block
 Number of reps : 4
 Plot size : 12' x 40'
 Row width/# per plot : 72"/2
Soil type..... : N/A
 OM (%)..... : N/A
 pH : N/A
Planting date : N/A
Harvest date : N/A
Crop/Variety : Sugarcane/540 (1st stubble)
Uniform std. treatment..... : Brash @ 32 oz/A

Application type : POST A
Date applied (mm-dd-yy) : 3-2-12
Time (hh:mm-hh:mm) : 9:30-10:45pm
Incorporation equipment..... : N/A
Incorporation depth..... : N/A
Air/Soil temperature (F) : 75/70
Wind (mph/direction) : 9-12/SW
Relative humidity (%) : 85
Soil/Leaf surface moist..... : moist/dry
Crop stage/height : 2-3lf/8-12"
Sprayer type/mpg..... : CO₂bkpk/3.0
Nozzle type/size..... : FF/11002VS
Boom ht/#noz/spacing (in) : 18"/4/18"
GPA/psi (at nozzle) : 15/28
Applied by : Bauerle

Weed species : % ground cover/stolon length
CYNDA..... : 30-60%/3-4" runners (not pegged)

Rainfall (in.)
0-24 hr/1-3 days..... : -- / --
4-7 days/2nd week..... : -- / --
3rd week/4th week..... : -- / --

Comments:
Activating rainfall of 0.25" was received on 3-5-12.

School of Plant, Environmental, and Soil Sciences

Bermudagrass Spring Test

Trial ID: 12SC02JG
 Location: Vacherie, LA
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type									W Weed		W Weed	
Pest Code									CYNDA		CYNDA	
Pest Scientific Name									Cynodon dactyl>		Cynodon dactyl>	
Pest Name									Bermuda grass		Bermuda grass	
Crop Code									CANE		CANE	
Rating Date									Mar/19/2012	Mar/19/2012	Apr/3/2012	Apr/3/2012
Rating Type									Control	Injury	Control	Injury
Rating Unit									%	%	%	%
Trt No.	Treatment Name	Form Conc	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	Tricor	75	2.25	lb ai/a	3	lb/a	3/7/12	A	49c	0d	43b	0c
2	Command Direx	3 4	1.13 2.5	lb ai/a	3 2.5	pt/a qt/a	3/7/12 3/7/12	A A	79a	26a	65a	19a
3	Prowl H2O Tricor	3.8 75	1.65 2.25	lb ai/a	1.74 3	qt/a lb/a	3/7/12 3/7/12	POST A POST A	49c	5cd	44b	10b
4	Command Tricor	3 75	1.13 0.75	lb ai/a	3 1	pt/a lb/a	3/7/12 3/7/12	POST A POST A	68b	14b	63a	16a
5	Velpar Tricor	2 75	0.5 1.5	lb ai/a	2 2	pt/a lb/a	3/7/12 3/7/12	POST A POST A	54c	3cd	49b	6b
6	Prowl H2O	3.8	2.48	lb ai/a	2.6	qt/a	3/7/12	POST A	13d	6c	23c	10b
LSD (P=.05)									7.3	4.4	6.2	3.8
Standard Deviation									4.8	2.9	4.1	2.5
CV									9.35	32.62	8.67	24.63
Bartlett's X2									3.536	1.14	5.37	1.74
P(Bartlett's X2)									0.618	0.888	0.372	0.419
Skewness									-0.7224	0.9892*	-0.4579	0.0375
Kurtosis									-0.0336	-0.1049	-0.1675	-0.7952
Replicate F									0.357	0.122	1.148	0.604
Replicate Prob(F)									0.7847	0.9457	0.3621	0.6222
Treatment F									87.071	43.732	56.508	29.044
Treatment Prob(F)									0.0001	0.0001	0.0001	0.0001

School of Plant, Environmental, and Soil Sciences

Bermudagrass Spring Test

Trial ID: 12SC02JG
 Location: Vacherie, LA
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed		W Weed
Pest Code	CYNDA		CYNDA
Pest Scientific Name	Cynodon dactyl>		Cynodon dactyl>
Pest Name	Bermuda grass		Bermuda grass
Crop Code	CANE		
Rating Date	Apr/16/2012	Apr/16/2012	Apr/30/2012
Rating Type	Control	Injury	Control
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	Tricor	75	2.25 lb ai/a	3	lb/a	3/7/12	A	49ab	0c	46ab
2	Command 3 Direx	3 4	1.13 lb ai/a	3 2.5 lb ai/a	3 pt/a 2.5 qt/a	3/7/12	A	54ab	15a	49ab
3	Prowl H2O3.8 Tricor	3.8 75	1.65 lb ai/a	1.74 2.25 lb ai/a	3 qt/a lb/a	3/7/12	POST A	53ab	0c	51ab
4	Command 3 Tricor	3 75	1.13 lb ai/a	3 0.75 lb ai/a	3 pt/a lb/a	3/7/12	POST A	59a	9b	55a
5	Velpar Tricor	2 75	0.5 lb ai/a	2 1.5 lb ai/a	2 pt/a lb/a	3/7/12	POST A	45b	5c	46ab
6	Prowl H2O3.8	3.8	2.48 lb ai/a	2.6	qt/a	3/7/12	POST A	29c	0c	39b

LSD (P=,05)	8.8	3.7	8.8
Standard Deviation	5.8	2.5	5.8
CV	12.2	51.3	12.19
Bartlett's X2	6.098	0.074	4.726
P(Bartlett's X2)	0.192	0.786	0.45
Skewness	-0.957*	0.8447	0.2016
Kurtosis	1.0251	-0.986	1.1183
Replicate F	3.293	1.552	3.316
Replicate Prob(F)	0.0498	0.2424	0.0488
Treatment F	12.854	25.000	3.579
Treatment Prob(F)	0.0001	0.0001	0.0249

School of Plant, Environmental, and Soil Sciences

Bermudagrass Spring Test

Trial ID: 12SC02JG
 Location: Vacherie, LA
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Crop Code	CANE
Rating Date	Apr/30/2012
Rating Type	Injury
Rating Unit	%

Trt No.	Treatment Name	Form Conc	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
1	Tricor	75	2.25 lb ai/a	3	lb/a	3/7/12	A	1b
2	Command 3	1.13 lb ai/a	3	pt/a	3/7/12	A	14a	
	Direx 4	2.5 lb ai/a	2.5	qt/a	3/7/12	A		
3	Prowl H2O3.8	1.65 lb ai/a	1.74	qt/a	3/7/12	POST A	0b	
	Tricor 75	2.25 lb ai/a	3	lb/a	3/7/12	POST A		
4	Command 3	1.13 lb ai/a	3	pt/a	3/7/12	POST A	4b	
	Tricor 75	0.75 lb ai/a	1	lb/a	3/7/12	POST A		
5	Velpar 2	0.5 lb ai/a	2	pt/a	3/7/12	POST A	4b	
	Tricor 75	1.5 lb ai/a	2	lb/a	3/7/12	POST A		
6	Prowl H2O3.8	2.48 lb ai/a	2.6	qt/a	3/7/12	POST A	0b	

LSD (P=.05)	4.3
Standard Deviation	2.8
CV	75.69
Bartlett's X2	2.218
P(Bartlett's X2)	0.528
Skewness	1.1605*
Kurtosis	-0.1633

Replicate F	2.241
Replicate Prob(F)	0.1255
Treatment F	13.345
Treatment Prob(F)	0.0001

Sugarcane Tolerance Test
LSU AgCenter
 School of Plant, Environmental, and Soil Sciences

Experiment number : 12SC03JG
 Location..... : St. Gabriel, LA
 Experimental design : Randomized Complete Block
 Number of reps : 4
 Plot size : 18' x 40'
 Row width/# per plot : 72"/3
 Soil type..... : silt loam
 OM (%)..... : 1.0
 pH : 5.9
 Planting date : September 2011
 Harvest date..... : 11-16-12
 Crop/Variety : Sugarcane/L 03-371 (plant cane)
 Uniform std. treatment..... : N/A

Application type : POST A
 Date applied (mm-dd-yy) : 3-26-12
 Time (hh:mm-hh:mm) : 11:10-12:00pm
 Incorporation equipment..... : N/A
 Incorporation depth..... : N/A
 Air/Soil temperature (F) : 76/71
 Wind (mph/direction) : 2-3/NE
 Relative humidity (%) : 51
 Soil/Leaf surface moist..... : moist/dry
 Crop stage/height..... : 5-8lf/25-30"
 Sprayer type/mph..... : CO₂bkpk/3.0
 Nozzle type/size..... : FF/TTI11002
 Boom ht/#noz/spacing (in) : 15"/4/18"
 GPA/psi (at nozzle) : 15/28
 Applied by : Bauerle

Weed species : population per ft²/height/# leaves
 N/A :

Rainfall (in.)
 0-24 hr/1-3 days..... : 0.00/0.21
 4-7 days/2nd week..... : 0.43/2.85
 3rd week/4th week..... : 0.97/0.59

Comments:

School of Plant, Environmental, and Soil Sciences

Sugarcane Tolerance Test

Trial ID: 12SC03JG
 Location: St. Gabriel, LA
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Crop Code									CANE	CANE	CANE	CANE
Rating Date									Apr/11/2012	Apr/24/2012	May/10/2012	Nov/16/2012
Rating Type									Injury	Injury	Injury	Plot
Rating Unit									%	%	%	lbs
Trt No.	Treatment Name	Form Conc	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	Sharpen	2.85	0.0223	lb ai/a	1	oz/a	POST	A	5bc	4ab	0a	1061a
2	Sharpen	2.85	0.0445	lb ai/a	2	oz/a	POST	A	11b	4ab	4a	867a
3	Zidua	85	0.106	lb ai/a	2	oz wt/a	POST	A	0c	0b	0a	854a
4	Zidua	85	0.16	lb ai/a	3	oz wt/a	POST	A	3c	5ab	5a	943a
5	Zidua Sharpen	85 2.85	0.106 0.0223	lb ai/a lb ai/a	2 1	oz wt/a oz/a	POST POST	A A	18a	5ab	4a	976a
6	Velpar Tricor	2 75	0.5 1.5	lb ai/a lb ai/a	2 2	pt/a lb/a	POST POST	A A	9bc	13a	9a	788a
7	Tricor	75	1.5	lb ai/a	2	lb/a	POST	A	0c	0b	0a	919a
8	Prowl Atrazine	3.8 4	2.85 1	lb ai/a lb ai/a	3 32	qt/a oz/a	POST POST	A A	1c	0b	0a	866a
9	Nontreated								0c	0b	0a	889a
LSD (P=.05)									5.8	6.3	6.0	193.6
Standard Deviation									3.9	4.3	4.1	132.6
CV									78.03	130.1	173.8	14.63
Bartlett's X2									5.187	0.692	0.59	9.687
P(Bartlett's X2)									0.393	0.952	0.899	0.288
Skewness									1.0719*	1.5496*	1.7201*	1.3594*
Kurtosis									-0.1751	1.5141	1.505	2.1567*
Replicate F									1.435	1.083	1.031	3.313
Replicate Prob(F)									0.2572	0.3751	0.3966	0.0371
Treatment F									9.505	3.572	2.361	1.431
Treatment Prob(F)									0.0001	0.0073	0.0495	0.2345

School of Plant, Environmental, and Soil Sciences

Sugarcane Tolerance Test

Trial ID: 12SC03JG
 Location: St. Gabriel, LA
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Crop Code								CANE	CANE	CANE	CANE
Rating Date								Nov/16/2012	Nov/16/2012	Nov/16/2012	Nov/16/2012
Rating Type								Cane Yield	Cane Yield	TRS	Sugar Yield
Rating Unit								lbs/A	T/A	lbs/T	lbs/A
Trt No.	Treatment Name	Form Conc	Rate Rate	Other Unit	Other Rate	Growth Unit	Appl Code				
1	Sharpen	2.85	0.0223	lb ai/a 1	oz/a	POST	A	64168a	32a	267.4a	8584a
2	Sharpen	2.85	0.0445	lb ai/a 2	oz/a	POST	A	52446a	26a	271.4a	7348a
3	Zidua	85	0.106	lb ai/a 2	oz wt/a	POST	A	51652a	26a	278.0a	7183a
4	Zidua	85	0.16	lb ai/a 3	oz wt/a	POST	A	57022a	29a	266.2a	7565a
5	Zidua Sharpen	85 2.85	0.106 0.0223	lb ai/a 2 lb ai/a 1	oz wt/a oz/a	POST POST	A A	59026a	30a	268.2a	7913a
6	Velpar Tricor	2 75	0.5 1.5	lb ai/a 2 lb ai/a 2	pt/a lb/a	POST POST	A A	47682a	24a	272.7a	6495a
7	Tricor	75	1.5	lb ai/a 2	lb/a	POST	A	55585a	28a	271.8a	7524a
8	Prowl Atrazine	3.8 4	2.85 1	lb ai/a 3 lb ai/a 32	qt/a oz/a	POST POST	A A	52371a	26a	266.8a	6956a
9	Nontreated							53770a	27a	269.5a	7250a
LSD (P=.05)								11711.0	6.0	12.96	1553.4
Standard Deviation								8024.2	4.1	8.86	1061.8
CV								14.63	14.87	3.28	14.3
Bartlett's X2								9.7	9.126	13.413	9.645
P(Bartlett's X2)								0.287	0.332	0.098	0.291
Skewness								1.3608*	1.3679*	-0.6568	1.4146*
Kurtosis								2.16*	2.3642*	0.4245	2.2057*
Replicate F								3.311	3.535	2.941	2.850
Replicate Prob(F)								0.0371	0.0299	0.0545	0.0596
Treatment F								1.431	1.320	0.704	1.238
Treatment Prob(F)								0.2346	0.2811	0.6852	0.3222

PRE/POST Comparisons Test
LSU AgCenter
School of Plant, Environmental, and Soil Sciences

Experiment number : 12SB01JG
Location..... : Ben Hur Research Farm
Experimental design : Randomized Complete Block
Number of reps : 4
Plot size : 11.25' x 25' (6' x 25' treated)
Row width/# per plot : 15"/3
Soil type..... : clay loam
OM (%)..... : 1.9
pH : 6.3
Planting date : 5-17-12
Harvest date..... : 10-10-12
Crop/Variety : Soybean/Pioneer 95Y31
Uniform std. treatment..... : N/A

Application type	PRE A	POST B
Date applied (mm-dd-yy)	5-17-12	6-15-12
Time (hh:mm-hh:mm)	1:00-1:45pm	11:45-12:00pm
Incorporation equipment.....	N/A	N/A
Incorporation depth.....	N/A	N/A
Air/Soil temperature (F)	85/85	84/82
Wind (mph/direction)	3/NE	3-4/NW
Relative humidity (%)	34	60
Soil/Leaf surface moist.....	dry/N/A	moist/dry
Crop stage/height.....	N/A	V4-V5/10-12"
Sprayer type/mpg.....	CO ₂ bkpk/3.0	CO ₂ bkpk/3.0
Nozzle type/size.....	FF/TTI11002	FF/TTI11002
Boom ht/#noz/spacing (in)	15"/4/18"	15"/4/18"
GPA/psi (at nozzle)	15/28	15/28
Applied by	Bauerle	Bauerle

Weed species	population per ft ² /height/# leaves	
ECHCG	N/A	0-3/2-8" (most 2-3")/2-8
IPOLA	N/A	1-6/2"-running (most 2-4")/1-5
SIDSP	N/A	0-3/1-3"/1-3
SEBEX	N/A	0-1/2-8"/2-8

Rainfall (in.)		
0-24 hr/1-3 days.....	0.00/0.00	1.11/0.57
4-7 days/2nd week.....	0.00/0.21	0.01/0.31
3rd week/4th week.....	4.37/0.95	0.42/3.18

Comments:

Insecticide treatments consisted of 1 lb/A Orthene + 3 oz/A Belt applied on 8-23-12 and 0.5 lb/A Orthene + 6 oz/A Discipline applied on 9-5-12.

Harvest aid was applied at R7 growth stage on 9-22-12; 16 oz/A Gramoxone + 1.5 oz/A Aim + 0.25% v/v Induce in 15 GPA.

School of Plant, Environmental, and Soil Sciences

PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed
Pest Code	ECHCG	IPOLA
Pest Scientific Name	Echinochloa cr>	Ipomoea lacuno>
Pest Name	Common barnyar>	Pitted morning>
Rating Date	Jun/15/2012	Jun/15/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	Envive Roundup Weathermax	41.3 5.5	DF L	0.09 0.95	lb ai/a lb ai/a	3.5 22	oz/a oz/a	PRE POST	A B	71ab	81a
2	Anthem Roundup Weathermax	2.15 5.5	SC L	0.134 0.95	lb ai/a lb ai/a	8 22	fl oz/a oz/a	PRE POST	A B	79a	39d
3	Canopy DF Roundup Weathermax	75 5.5	DF L	0.28 0.95	lb ai/a lb ai/a	6 22	oz/a oz/a	PRE POST	A B	73ab	49bcd
4	Canopy EX Roundup Weathermax	29.5 5.5	WDG L	0.0277 0.95	lb ai/a lb ai/a	1.5 22	oz/a oz/a	PRE POST	A B	55b	53bcd
5	Sencor Roundup Weathermax	75 5.5	DF L	0.5 0.95	lb ai/a lb ai/a	10.7 22	oz/a oz/a	PRE POST	A B	65ab	66abc
6	Authority MTZ Roundup Weathermax	45 5.5	DF L	0.394 0.95	lb ai/a lb ai/a	14 22	oz/a oz/a	PRE POST	A B	79a	73ab
7	Prefix Roundup Weathermax	5.29 5.5	L L	1.32 0.95	lb ai/a lb ai/a	2 22	pt/a oz/a	PRE POST	A B	86a	46bcd
8	Valor SX Roundup Weathermax	51 5.5	DF L	0.064 0.95	lb ai/a lb ai/a	2 22	oz/a oz/a	PRE POST	A B	84a	65abc
9	Boundary Roundup Weathermax	6.5 5.5	L L	1.22 0.95	lb ai/a lb ai/a	1.5 22	pt/a oz/a	PRE POST	A B	82a	48bcd
10	Valor XLT Roundup Weathermax	40 5.5	DF L	0.075 0.95	lb ai/a lb ai/a	3 22	oz/a oz/a	PRE POST	A B	76a	69abc
11	Cinch Roundup Weathermax	7.64 5.5	L L	0.955 0.95	lb ai/a lb ai/a	16 22	oz/a oz/a	PRE POST	A B	83a	46bcd
12	Enlite Roundup Weathermax	47.86 5.5	WG L	0.084 0.95	lb ai/a lb ai/a	2.8 22	oz/a oz/a	PRE POST	A B	85a	70abc
13	Fierce Roundup Weathermax	76 5.5	WDG L	0.142 0.95	lb ai/a lb ai/a	3 22	oz wt/a oz/a	PRE POST	A B	86a	73ab

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PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed
Pest Code	ECHCG	IPLA
Pest Scientific Name	Echinochloa cr>	Ipomoea lacuno>
Pest Name	Common barnyar>	Pitted morning>
Rating Date	Jun/15/2012	Jun/15/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
14	Zidua Roundup Weathermax	85 5.5	WG L	0.133 0.95	lb ai/a lb ai/a	2.5 22	oz wt/a oz/a	PRE POST	A B	85a	45cd
15	No PRE RoundupWeathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B	0c	0e

LSD (P=.05)	14.4	15.7
Standard Deviation	10.1	11.0
CV	13.86	20.09
Bartlett's X2	18.684	10.422
P(Bartlett's X2)	0.133	0.659
Skewness	-2.1341*	-0.9331*
Kurtosis	4.3971*	0.6301
Replicate F	1.202	1.795
Replicate Prob(F)	0.3208	0.1629
Treatment F	18.997	13.193
Treatment Prob(F)	0.0001	0.0001

School of Plant, Environmental, and Soil Sciences

PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed
Pest Code	SIDSP	SEBEX
Pest Scientific Name	Sida spinosa	Sesbania exalt>
Pest Name	Prickly sida	Hemp sesbania
Rating Date	Jun/15/2012	Jun/15/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Rate Unit	Other Rate	Other Unit	Growth Stage	Appl Code		
1	Envive Roundup Weathermax	41.35.5	DF L	0.090.95	lb ai/a 3.5 22	oz/a oz/a		PRE POST	A B	94a	95
2	Anthem Roundup Weathermax	2.155.5	SC L	0.1340.95	lb ai/a 8 22	fl oz/a oz/a		PRE POST	A B	69abc	90
3	Canopy DF Roundup Weathermax	755.5	DF L	0.280.95	lb ai/a 6 22	oz/a oz/a		PRE POST	A B	73abc	80
4	Canopy EX Roundup Weathermax	29.55.5	WDG L	0.02770.95	lb ai/a 1.5 22	oz/a oz/a		PRE POST	A B	65abc	
5	Sencor Roundup Weathermax	755.5	DF L	0.50.95	lb ai/a 10.7 22	oz/a oz/a		PRE POST	A B	79abc	
6	Authority MTZ Roundup Weathermax	455.5	DF L	0.3940.95	lb ai/a 14 22	oz/a oz/a		PRE POST	A B	86ab	40
7	Prefix Roundup Weathermax	5.295.5	L L	1.320.95	lb ai/a 2 22	pt/a oz/a		PRE POST	A B	59bc	
8	Valor SX Roundup Weathermax	515.5	DF L	0.0640.95	lb ai/a 2 22	oz/a oz/a		PRE POST	A B	85ab	
9	Boundary Roundup Weathermax	6.55.5	L L	1.220.95	lb ai/a 1.5 22	pt/a oz/a		PRE POST	A B	63bc	
10	Valor XLT Roundup Weathermax	405.5	DF L	0.0750.95	lb ai/a 3 22	oz/a oz/a		PRE POST	A B	86ab	
11	Cinch Roundup Weathermax	7.645.5	L L	0.9550.95	lb ai/a 16 22	oz/a oz/a		PRE POST	A B	59bc	
12	Enlite Roundup Weathermax	47.865.5	WG L	0.0840.95	lb ai/a 2.8 22	oz/a oz/a		PRE POST	A B	94a	
13	Fierce Roundup Weathermax	765.5	WDG L	0.1420.95	lb ai/a 3 22	oz wt/a oz/a		PRE POST	A B	93a	

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PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed
Pest Code	SIDSP	SEBEX
Pest Scientific Name	Sida spinosa	Sesbania exalt>
Pest Name	Prickly sida	Hemp sesbania
Rating Date	Jun/15/2012	Jun/15/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl
No.	Name	Conc	Type	Rate	Unit	Rate	Unit	Code
14	Zidua	85	WG	0.133	lb ai/a	2.5	oz wt/a	PRE A
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST B
15	No PRE							0d
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST B

LSD (P=.05)	17.5	.
Standard Deviation	12.3	.
CV	17.44	.
Bartlett's X2	36.162	.
P(Bartlett's X2)	0.001*	.
Skewness	-1.3408*	0.3945
Kurtosis	1.2674*	-2.2042
Replicate F	4.004	
Replicate Prob(F)	0.0135	
Treatment F	15.099	
Treatment Prob(F)	0.0001	

School of Plant, Environmental, and Soil Sciences

PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed
Pest Code	ECHCG
Pest Scientific Name	Echinochloa cr>
Pest Name	Common barnyar>
Crop Code	GLXMA
BBCH Scale	BSOY
Crop Scientific Name	Glycine max
Crop Name	Soybean
Rating Date	Jun/15/2012
Rating Type	Injury
Rating Unit	%

Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Rate Unit	Other Rate	Other Unit	Growth Stage	Appl Code		
1	Envive	41.3	DF	0.09	lb ai/a	3.5	oz/a	PRE	A	0a	92a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
2	Anthem	2.15	SC	0.134	lb ai/a	8	fl oz/a	PRE	A	0a	94a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
3	Canopy DF	75	DF	0.28	lb ai/a	6	oz/a	PRE	A	0a	92a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
4	Canopy EX	29.5	WDG	0.0277	lb ai/a	1.5	oz/a	PRE	A	0a	94a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
5	Sencor	75	DF	0.5	lb ai/a	10.7	oz/a	PRE	A	0a	95a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
6	Authority MTZ	45	DF	0.394	lb ai/a	14	oz/a	PRE	A	0a	94a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
7	Prefix	5.29	L	1.32	lb ai/a	2	pt/a	PRE	A	0a	95a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
8	Valor SX	51	DF	0.064	lb ai/a	2	oz/a	PRE	A	0a	95a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
9	Boundary	6.5	L	1.22	lb ai/a	1.5	pt/a	PRE	A	0a	95a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
10	Valor XLT	40	DF	0.075	lb ai/a	3	oz/a	PRE	A	0a	95a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
11	Cinch	7.64	L	0.955	lb ai/a	16	oz/a	PRE	A	0a	93a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
12	Enlite	47.86	WG	0.084	lb ai/a	2.8	oz/a	PRE	A	0a	95a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		

School of Plant, Environmental, and Soil Sciences

PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed
Pest Code	ECHCG
Pest Scientific Name	Echinochloa cr>
Pest Name	Common barnyar>
Crop Code	GLXMA
BBCH Scale	BSOY
Crop Scientific Name	Glycine max
Crop Name	Soybean
Rating Date	Jun/15/2012
Rating Type	Injury
Rating Unit	%

Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Rate Unit	Other Rate	Other Unit	Growth Stage	Appl Code		
13	Fierce	76	WDG	0.142	lb ai/a 3	oz wt/a		PRE	A	0a	96a
	Roundup Weathermax	5.5	L	0.95	lb ai/a 22	oz/a		POST	B		
14	Zidua	85	WG	0.133	lb ai/a 2.5	oz wt/a		PRE	A	0a	93a
	Roundup Weathermax	5.5	L	0.95	lb ai/a 22	oz/a		POST	B		
15	No PRE									0a	93a
	Roundup Weathermax	5.5	L	0.95	lb ai/a 22	oz/a		POST	B		

LSD (P=.05)	0.0	3.5
Standard Deviation	0.0	2.4
CV	0.0	2.58
Bartlett's X2	0.0	20.063
P(Bartlett's X2)	.	0.066
Skewness	.	-2.0947*
Kurtosis	.	4.8696*
Replicate F	0.000	1.079
Replicate Prob(F)	1.0000	0.3683
Treatment F	0.000	0.886
Treatment Prob(F)	1.0000	0.5783

School of Plant, Environmental, and Soil Sciences

PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type										W Weed	W Weed
Pest Code										IPOLA	SIDSP
Pest Scientific Name										Ipomoea lacuno>	Sida spinosa
Pest Name										Pitted morning>	Prickly sida
Rating Date										Jun/29/2012	Jun/29/2012
Rating Type										Control	Control
Rating Unit										%	%
Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Rate Unit	Other Rate	Other Unit	Growth Stage	Appl Code		
1	Envive Roundup Weathermax	41.35.5	DF L	0.090.95	lb ai/a 22	3.5 oz/a		PRE POST	A B	87a	95a
2	Anthem Roundup Weathermax	2.155.5	SC L	0.1340.95	lb ai/a 22	8 fl oz/a		PRE POST	A B	76ab	95a
3	Canopy DF Roundup Weathermax	755.5	DF L	0.280.95	lb ai/a 22	6 oz/a		PRE POST	A B	85a	95a
4	Canopy EX Roundup Weathermax	29.55.5	WDG L	0.02770.95	lb ai/a 22	1.5 oz/a		PRE POST	A B	78ab	95a
5	Sencor Roundup Weathermax	755.5	DF L	0.50.95	lb ai/a 22	10.7 oz/a		PRE POST	A B	91a	95a
6	Authority MTZ Roundup Weathermax	455.5	DF L	0.3940.95	lb ai/a 22	14 oz/a		PRE POST	A B	90a	95a
7	Prefix Roundup Weathermax	5.295.5	L L	1.320.95	lb ai/a 22	2 pt/a		PRE POST	A B	81ab	95a
8	Valor SX Roundup Weathermax	515.5	DF L	0.0640.95	lb ai/a 22	2 oz/a		PRE POST	A B	83a	95a
9	Boundary Roundup Weathermax	6.55.5	L L	1.220.95	lb ai/a 22	1.5 pt/a		PRE POST	A B	80ab	95a
10	Valor XLT Roundup Weathermax	405.5	DF L	0.0750.95	lb ai/a 22	3 oz/a		PRE POST	A B	86a	95a
11	Cinch Roundup Weathermax	7.645.5	L L	0.9550.95	lb ai/a 22	16 oz/a		PRE POST	A B	74ab	95a
12	Enlite Roundup Weathermax	47.865.5	WG L	0.0840.95	lb ai/a 22	2.8 oz/a		PRE POST	A B	92a	95a
13	Fierce Roundup Weathermax	765.5	WDG L	0.1420.95	lb ai/a 22	3 oz wt/a		PRE POST	A B	88a	95a

School of Plant, Environmental, and Soil Sciences

PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed
Pest Code	IPOLA	SIDSP
Pest Scientific Name	Ipomoea lacuno>	Sida spinosa
Pest Name	Pitted morning>	Prickly sida
Rating Date	Jun/29/2012	Jun/29/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Type	Rate	Unit	Rate	Rate	Unit	Stage	Code
14	Zidua	85	WG	0.133	lb ai/a	2.5	oz wt/a	PRE	A	78ab
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B	95a
15	No PRE									66b
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B	95a

LSD (P=.05)	10.3	0.0
Standard Deviation	7.2	0.0
CV	8.74	0.0
Bartlett's X2	17.883	0.0
P(Bartlett's X2)	0.212	.
Skewness	-0.2977	.
Kurtosis	-0.8302	.
Replicate F	0.338	0.000
Replicate Prob(F)	0.7977	1.0000
Treatment F	3.993	0.000
Treatment Prob(F)	0.0002	1.0000

School of Plant, Environmental, and Soil Sciences

PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed
Pest Code	ECHCG
Pest Scientific Name	Echinochloa cr>
Pest Name	Common barnyar>
Crop Code	GLXMA
BBCH Scale	BSOY
Crop Scientific Name	Glycine max
Crop Name	Soybean
Rating Date	Jun/29/2012
Rating Type	Injury
Rating Unit	%

Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Rate Unit	Other Rate	Other Unit	Growth Stage	Appl Code		
1	Envive	41.3	DF	0.09	lb ai/a	3.5	oz/a	PRE	A	0a	89a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
2	Anthem	2.15	SC	0.134	lb ai/a	8	fl oz/a	PRE	A	0a	96a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
3	Canopy DF	75	DF	0.28	lb ai/a	6	oz/a	PRE	A	0a	95a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
4	Canopy EX	29.5	WDG	0.0277	lb ai/a	1.5	oz/a	PRE	A	0a	90a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
5	Sencor	75	DF	0.5	lb ai/a	10.7	oz/a	PRE	A	0a	95a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
6	Authority MTZ	45	DF	0.394	lb ai/a	14	oz/a	PRE	A	0a	97a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
7	Prefix	5.29	L	1.32	lb ai/a	2	pt/a	PRE	A	1a	95a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
8	Valor SX	51	DF	0.064	lb ai/a	2	oz/a	PRE	A	0a	93a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
9	Boundary	6.5	L	1.22	lb ai/a	1.5	pt/a	PRE	A	0a	97a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
10	Valor XLT	40	DF	0.075	lb ai/a	3	oz/a	PRE	A	0a	97a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
11	Cinch	7.64	L	0.955	lb ai/a	16	oz/a	PRE	A	0a	96a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
12	Enlite	47.86	WG	0.084	lb ai/a	2.8	oz/a	PRE	A	0a	97a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		

School of Plant, Environmental, and Soil Sciences

PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed
Pest Code	ECHCG
Pest Scientific Name	Echinochloa cr>
Pest Name	Common barnyar>
Crop Code	GLXMA
BBCH Scale	BSOY
Crop Scientific Name	Glycine max
Crop Name	Soybean
Rating Date	Jun/29/2012
Rating Type	Injury
Rating Unit	%

Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Type	Rate	Unit	Rate	Rate	Unit	Stage	Code
13	Fierce	76	WDG	0.142	lb ai/a	3	oz wt/a	PRE	A	0a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B	97a
14	Zidua	85	WG	0.133	lb ai/a	2.5	oz wt/a	PRE	A	0a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B	96a
15	No PRE									0a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B	87a

LSD (P=.05)	0.9	6.0
Standard Deviation	0.6	4.2
CV	774.6	4.44
Bartlett's X2	0.0	39.805
P(Bartlett's X2)	.	0.001*
Skewness	7.746*	-2.8886*
Kurtosis	60.0*	10.6228*
Replicate F	1.000	2.768
Replicate Prob(F)	0.4023	0.0534
Treatment F	1.000	2.272
Treatment Prob(F)	0.4708	0.0204

School of Plant, Environmental, and Soil Sciences

PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type										W Weed	W Weed
Pest Code										IPOLA	SIDSP
Pest Scientific Name										Ipomoea lacuno>	Sida spinosa
Pest Name										Pitted morning>	Prickly sida
Rating Date										Jul/13/2012	Jul/13/2012
Rating Type										Control	Control
Rating Unit										%	%
Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Rate Unit	Other Rate	Other Unit	Growth Stage	Appl Code		
1	Envive	41.3	DF	0.09	lb ai/a	3.5	oz/a	PRE	A	86a	94a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
2	Anthem	2.15	SC	0.134	lb ai/a	8	fl oz/a	PRE	A	89a	96a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
3	Canopy DF	75	DF	0.28	lb ai/a	6	oz/a	PRE	A	88a	96a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
4	Canopy EX	29.5	WDG	0.0277	lb ai/a	1.5	oz/a	PRE	A	80a	93a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
5	Sencor	75	DF	0.5	lb ai/a	10.7	oz/a	PRE	A	93a	95a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
6	Authority MTZ	45	DF	0.394	lb ai/a	14	oz/a	PRE	A	90a	97a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
7	Prefix	5.29	L	1.32	lb ai/a	2	pt/a	PRE	A	84a	95a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
8	Valor SX	51	DF	0.064	lb ai/a	2	oz/a	PRE	A	83a	96a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
9	Boundary	6.5	L	1.22	lb ai/a	1.5	pt/a	PRE	A	86a	97a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
10	Valor XLT	40	DF	0.075	lb ai/a	3	oz/a	PRE	A	93a	97a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
11	Cinch	7.64	L	0.955	lb ai/a	16	oz/a	PRE	A	85a	96a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
12	Enlite	47.86	WG	0.084	lb ai/a	2.8	oz/a	PRE	A	89a	95a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
13	Fierce	76	WDG	0.142	lb ai/a	3	oz wt/a	PRE	A	85a	97a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		

School of Plant, Environmental, and Soil Sciences

PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed
Pest Code	IPOLA	SIDSP
Pest Scientific Name	Ipomoea lacuno>	Sida spinosa
Pest Name	Pitted morning>	Prickly sida
Rating Date	Jul/13/2012	Jul/13/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Rate Unit	Other Rate	Other Unit	Growth Stage	Appl Code		
14	Zidua Roundup Weathermax	85.5	WG L	0.133 0.95	lb ai/a	2.5 22	oz wt/a oz/a	PRE POST	A B	81a	95a
15	No PRE Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B	82a	88a

LSD (P=.05)	11.6	4.8
Standard Deviation	8.1	3.3
CV	9.43	3.52
Bartlett's X2	8.243	30.481
P(Bartlett's X2)	0.876	0.002*
Skewness	-0.3173	-2.7707*
Kurtosis	-1.1144	9.1158*
Replicate F	7.775	1.243
Replicate Prob(F)	0.0003	0.3063
Treatment F	1.029	1.661
Treatment Prob(F)	0.4451	0.1022

School of Plant, Environmental, and Soil Sciences

PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed
Pest Code	ECHCG
Pest Scientific Name	Echinochloa cr>
Pest Name	Common barnyar>
Crop Code	GLXMA
BBCH Scale	BSOY
Crop Scientific Name	Glycine max
Crop Name	Soybean
Rating Date	Jul/13/2012
Rating Type	Injury
Rating Unit	%

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Unit	Growth Stage	Appl Code		
1	Envive	41.3	DF	0.09	lb ai/a	3.5	oz/a	PRE	A	0a	93ab
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
2	Anthem	2.15	SC	0.134	lb ai/a	8	fl oz/a	PRE	A	0a	95a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
3	Canopy DF	75	DF	0.28	lb ai/a	6	oz/a	PRE	A	0a	95a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
4	Canopy EX	29.5	WDG	0.0277	lb ai/a	1.5	oz/a	PRE	A	0a	92ab
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
5	Sencor	75	DF	0.5	lb ai/a	10.7	oz/a	PRE	A	0a	97a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
6	Authority MTZ	45	DF	0.394	lb ai/a	14	oz/a	PRE	A	0a	95a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
7	Prefix	5.29	L	1.32	lb ai/a	2	pt/a	PRE	A	0a	95a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
8	Valor SX	51	DF	0.064	lb ai/a	2	oz/a	PRE	A	0a	93ab
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
9	Boundary	6.5	L	1.22	lb ai/a	1.5	pt/a	PRE	A	0a	97a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
10	Valor XLT	40	DF	0.075	lb ai/a	3	oz/a	PRE	A	0a	97a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
11	Cinch	7.64	L	0.955	lb ai/a	16	oz/a	PRE	A	0a	96a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
12	Enlite	47.86	WG	0.084	lb ai/a	2.8	oz/a	PRE	A	0a	97a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B		

School of Plant, Environmental, and Soil Sciences

PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed
Pest Code	ECHCG
Pest Scientific Name	Echinochloa cr>
Pest Name	Common barnyar>
Crop Code	GLXMA
BBCH Scale	BSOY
Crop Scientific Name	Glycine max
Crop Name	Soybean
Rating Date	Jul/13/2012
Rating Type	Injury
Rating Unit	%

Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Type	Rate	Unit	Rate	Rate	Unit	Stage	Code
13	Fierce	76	WDG	0.142	lb ai/a 3	oz wt/a	PRE	A	0a	97a
	Roundup Weathermax5.5	L		0.95	lb ai/a 22	oz/a	POST	B		
14	Zidua	85	WG	0.133	lb ai/a 2.5	oz wt/a	PRE	A	0a	96a
	Roundup Weathermax5.5	L		0.95	lb ai/a 22	oz/a	POST	B		
15	No PRE								0a	88b
	Roundup Weathermax5.5	L		0.95	lb ai/a 22	oz/a	POST	B		

LSD (P=.05)	0.0	4.5
Standard Deviation	0.0	3.1
CV	0.0	3.31
Bartlett's X2	0.0	28.25
P(Bartlett's X2)	.	0.005*
Skewness	.	-2.9299*
Kurtosis	.	12.7553*
Replicate F	0.000	2.860
Replicate Prob(F)	1.0000	0.0482
Treatment F	0.000	2.335
Treatment Prob(F)	1.0000	0.0172

School of Plant, Environmental, and Soil Sciences

PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type										W Weed	W Weed
Pest Code										IPOLA	SIDSP
Pest Scientific Name										Ipomoea lacuno>	Sida spinosa
Pest Name										Pitted morning>	Prickly sida
Rating Date										Jul/27/2012	Jul/27/2012
Rating Type										Control	Control
Rating Unit										%	%
Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Rate Unit	Other Rate	Other Unit	Growth Stage	Appl Code		
1	Envive Roundup Weathermax	41.35.5	DF L	0.090.95	lb ai/a 22	3.5 oz/a		PRE POST	A B	90a	95a
2	Anthem Roundup Weathermax	2.155.5	SC L	0.1340.95	lb ai/a 22	8 fl oz/a		PRE POST	A B	88a	95a
3	Canopy DF Roundup Weathermax	755.5	DF L	0.280.95	lb ai/a 22	6 oz/a		PRE POST	A B	92a	96a
4	Canopy EX Roundup Weathermax	29.55.5	WDG L	0.02770.95	lb ai/a 22	1.5 oz/a		PRE POST	A B	84a	94a
5	Sencor Roundup Weathermax	755.5	DF L	0.50.95	lb ai/a 22	10.7 oz/a		PRE POST	A B	95a	96a
6	Authority MTZ Roundup Weathermax	455.5	DF L	0.3940.95	lb ai/a 22	14 oz/a		PRE POST	A B	93a	97a
7	Prefix Roundup Weathermax	5.295.5	L L	1.320.95	lb ai/a 22	2 pt/a		PRE POST	A B	87a	95a
8	Valor SX Roundup Weathermax	515.5	DF L	0.0640.95	lb ai/a 22	2 oz/a		PRE POST	A B	88a	95a
9	Boundary Roundup Weathermax	6.55.5	L L	1.220.95	lb ai/a 22	1.5 pt/a		PRE POST	A B	88a	96a
10	Valor XLT Roundup Weathermax	405.5	DF L	0.0750.95	lb ai/a 22	3 oz/a		PRE POST	A B	94a	97a
11	Cinch Roundup Weathermax	7.645.5	L L	0.9550.95	lb ai/a 22	16 oz/a		PRE POST	A B	90a	97a
12	Enlite Roundup Weathermax	47.865.5	WG L	0.0840.95	lb ai/a 22	2.8 oz/a		PRE POST	A B	94a	97a
13	Fierce Roundup Weathermax	765.5	WDG L	0.1420.95	lb ai/a 22	3 oz wt/a		PRE POST	A B	91a	97a

School of Plant, Environmental, and Soil Sciences

PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed										W Weed	
Pest Code	IPOLA										SIDSP	
Pest Scientific Name	Ipomoea lacuno>										Sida spinosa	
Pest Name	Pitted morning>										Prickly sida	
Rating Date	Jul/27/2012										Jul/27/2012	
Rating Type	Control										Control	
Rating Unit	%										%	
Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
14	Zidua	85	WG	0.133	lb ai/a	2.5	oz wt/a	PRE	A	88a	95a	
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B			
15	No PRE									85a	93a	
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B			
LSD (P=.05)										9.2	2.7	
Standard Deviation										6.4	1.9	
CV										7.15	2.0	
Bartlett's X2										12.795	13.213	
P(Bartlett's X2)										0.543	0.153	
Skewness										-0.8413*	-2.3139*	
Kurtosis										0.2314	12.1846*	
Replicate F										6.047	2.543	
Replicate Prob(F)										0.0016	0.0691	
Treatment F										1.057	1.139	
Treatment Prob(F)										0.4209	0.3548	

School of Plant, Environmental, and Soil Sciences

PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

										GLXMA	GLXMA	GLXMA
										BSOY	BSOY	BSOY
										Glycine max	Glycine max	Glycine max
										Soybean	Soybean	Soybean
										Jul/27/2012	Oct/10/2012	Oct/10/2012
										Injury	Moisture	Test Weight
										%	%	lb/bu
Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl				
No.	Name	Conc	Type	Rate	Unit	Rate	Unit	Stage	Code			
1	Envide	41.3	DF	0.09	lb ai/a	3.5	oz/a	PRE	A	0a	13.2a	52.7a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B			
2	Anthem	2.15	SC	0.134	lb ai/a	8	fl oz/a	PRE	A	0a	13.3a	51.9a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B			
3	Canopy DF	75	DF	0.28	lb ai/a	6	oz/a	PRE	A	0a	12.9a	52.4a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B			
4	Canopy EX	29.5	WDG	0.0277	lb ai/a	1.5	oz/a	PRE	A	0a	12.6a	52.5a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B			
5	Sencor	75	DF	0.5	lb ai/a	10.7	oz/a	PRE	A	0a	12.5a	54.5a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B			
6	Authority MTZ	45	DF	0.394	lb ai/a	14	oz/a	PRE	A	0a	12.7a	53.9a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B			
7	Prefix	5.29	L	1.32	lb ai/a	2	pt/a	PRE	A	0a	13.0a	53.8a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B			
8	Valor SX	51	DF	0.064	lb ai/a	2	oz/a	PRE	A	0a	12.8a	54.4a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B			
9	Boundary	6.5	L	1.22	lb ai/a	1.5	pt/a	PRE	A	0a	12.8a	54.9a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B			
10	Valor XLT	40	DF	0.075	lb ai/a	3	oz/a	PRE	A	0a	12.7a	54.6a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B			
11	Cinch	7.64	L	0.955	lb ai/a	16	oz/a	PRE	A	0a	13.1a	53.1a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B			
12	Enlite	47.86	WG	0.084	lb ai/a	2.8	oz/a	PRE	A	0a	13.0a	53.6a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B			
13	Fierce	76	WDG	0.142	lb ai/a	3	oz wt/a	PRE	A	0a	13.4a	51.7a
	Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B			

School of Plant, Environmental, and Soil Sciences

PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Crop Code	GLXMA	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean
Rating Date	Jul/27/2012	Oct/10/2012	Oct/10/2012
Rating Type	Injury	Moisture	Test Weight
Rating Unit	%	%	lb/bu

Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Rate Unit	Other Rate	Other Unit	Growth Stage	Appl Code			
14	Zidua Roundup Weathermax	85	WG	0.133	lb ai/a	2.5	oz wt/a	PRE	A	0a	12.7a	51.3a
		5.5	L	0.95	lb ai/a	22	oz/a	POST	B			
15	No PRE Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B	0a	12.9a	54.2a

LSD (P=.05)	0.0	1.08	2.92
Standard Deviation	0.0	0.75	2.04
CV	0.0	5.84	3.83
Bartlett's X2	0.0	13.367	40.249
P(Bartlett's X2)	.	0.498	0.001*
Skewness	.	0.459	-1.5657*
Kurtosis	.	-0.311	2.8687*
Replicate F	0.000	1.573	4.950
Replicate Prob(F)	1.0000	0.2101	0.0049
Treatment F	0.000	0.460	1.276
Treatment Prob(F)	1.0000	0.9417	0.2623

School of Plant, Environmental, and Soil Sciences

PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Crop Code	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Oct/10/2012	Oct/10/2012
Rating Type	Yield	Yield
Rating Unit	kg	bu/A

Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Rate Unit	Other Rate	Other Unit	Growth Stage	Appl Code		
1	Envive Roundup Weathermax	41.35.5	DF L	0.090.95	lb ai/a	3.522	oz/a	PRE POST	A B	2.985a	38.2a
2	Anthem Roundup Weathermax	2.155.5	SC L	0.1340.95	lb ai/a	822	fl oz/a	PRE POST	A B	3.118a	39.8a
3	Canopy DF Roundup Weathermax	755.5	DF L	0.280.95	lb ai/a	622	oz/a	PRE POST	A B	3.783a	48.5a
4	Canopy EX Roundup Weathermax	29.55.5	WDG L	0.02770.95	lb ai/a	1.522	oz/a	PRE POST	A B	3.208a	41.3a
5	Sencor Roundup Weathermax	755.5	DF L	0.50.95	lb ai/a	10.722	oz/a	PRE POST	A B	3.891a	50.1a
6	Authority MTZ Roundup Weathermax	455.5	DF L	0.3940.95	lb ai/a	1422	oz/a	PRE POST	A B	3.760a	48.3a
7	Prefix Roundup Weathermax	5.295.5	L L	1.320.95	lb ai/a	222	pt/a	PRE POST	A B	3.369a	43.2a
8	Valor SX Roundup Weathermax	515.5	DF L	0.0640.95	lb ai/a	222	oz/a	PRE POST	A B	3.496a	44.9a
9	Boundary Roundup Weathermax	6.55.5	L L	1.220.95	lb ai/a	1.522	pt/a	PRE POST	A B	3.609a	46.3a
10	Valor XLT Roundup Weathermax	405.5	DF L	0.0750.95	lb ai/a	322	oz/a	PRE POST	A B	3.571a	45.9a
11	Cinch Roundup Weathermax	7.645.5	L L	0.9550.95	lb ai/a	1622	oz/a	PRE POST	A B	3.104a	39.7a
12	Enlite Roundup Weathermax	47.865.5	WG L	0.0840.95	lb ai/a	2.822	oz/a	PRE POST	A B	3.808a	48.8a
13	Fierce Roundup Weathermax	765.5	WDG L	0.1420.95	lb ai/a	322	oz wt/a	PRE POST	A B	3.879a	49.4a

School of Plant, Environmental, and Soil Sciences

PRE/POST Comparisons Test

Trial ID: 12SB01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Crop Code	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Oct/10/2012	Oct/10/2012
Rating Type	Yield	Yield
Rating Unit	kg	bu/A

Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Rate Unit	Other Rate	Other Unit	Growth Stage	Appl Code		
14	Zidua Roundup Weathermax	85	WG	0.133	lb ai/a	2.5	oz wt/a	PRE	A	3.627a	46.6a
		5.5	L	0.95	lb ai/a	22	oz/a	POST	B		
15	No PRE Roundup Weathermax	5.5	L	0.95	lb ai/a	22	oz/a	POST	B	3.376a	43.3a

LSD (P=.05)	0.6058	7.88
Standard Deviation	0.4239	5.51
CV	12.09	12.27
Bartlett's X2	27.379	24.906
P(Bartlett's X2)	0.017*	0.036*
Skewness	0.3973	0.3268
Kurtosis	1.4729*	1.3093*
Replicate F	1.761	1.896
Replicate Prob(F)	0.1694	0.1450
Treatment F	2.000	1.970
Treatment Prob(F)	0.0421	0.0455

DuPont Soybean Herbicide Programs
LSU AgCenter
School of Plant, Environmental, and Soil Sciences

Experiment number : 12SB02JG
Location..... : Ben Hur Research Farm
Experimental design : Randomized Complete Block
Number of reps : 1
Plot size : 11.25' x 40' (6' x 40' treated)
Row width/# per plot : 15"/3
Soil type..... : clay loam
OM (%)..... : 1.9
pH : 6.3
Planting date : 5-16-12
Harvest date : 10-9-12
Crop/Variety : Soybean/Pioneer 95Y31
Uniform std. treatment..... : N/A

Application type	PRE A	POST B
Date applied (mm-dd-yy)	5-16-12	6-15-12
Time (hh:mm-hh:mm)	3:30-3:45pm	2:50-3:00pm
Incorporation equipment.....	N/A	N/A
Incorporation depth.....	N/A	N/A
Air/Soil temperature (F)	85/86	83/85
Wind (mph/direction)	8/E	7/SE
Relative humidity (%)	39	62
Soil/Leaf surface moist.....	dry/N/A	moist/dry
Crop stage/height.....	N/A	V4-V5/10-12"
Sprayer type/mph.....	CO ₂ bkpk/3.0	CO ₂ bkpk/3.0
Nozzle type/size.....	FF/TTI11002	FF/TTI11002
Boom ht/#noz/spacing (in)	15"/4/18"	15"/4/18"
GPA/psi (at nozzle)	15/28	15/28
Applied by	Hardwick	Hardwick

Weed species	population per ft ² /height/# leaves	
ECHCG	N/A	90-100/1-10"/3-8
IPOLA	N/A	1-4/2-5"/3
SEBEX	N/A	0-1/2-5"/1-4

Rainfall (in.)		
0-24 hr/1-3 days.....	0.00/0.00	1.11/0.57
4-7 days/2nd week.....	0.00/0.00	0.01/0.31
3rd week/4th week.....	3.20/2.28	0.42/3.18

Comments:

Insecticide treatments consisted of 1 lb/A Orthene + 3 oz/A Belt applied on 8-23-12 and 0.5 lb/A Orthene + 6 oz/A Discipline applied on 9-5-12.

Harvest aid was applied at R7 growth stage on 9-22-12; 16 oz/A Gramoxone + 1.5 oz/A Aim + 0.25% v/v Induce in 15 GPA.

School of Plant, Environmental, and Soil Sciences

DuPont Soybean Herbicide Programs

Trial ID: 12SB02JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed
Pest Code	ECHCG	IPOLA
Pest Scientific Name	Echinochloa cr>	Ipomoea lacuno>
Pest Name	Common barnyar>	Pitted morning>
Rating Date	Jun/15/2012	Jun/15/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Rate Rate	Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	70	80
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B		
	Flexstar GT	3.29	3.5	pt/a	1.44	lb ai/a	POST	B		
	Classic	25	0.33	oz/a	0.00516	lb ai/a	POST	B		
	Approach	2.08	6	fl oz/a	0.0975	lb ai/a	POST	C		
	NIS		0.25	% v/v	0.25	% v/v	POST	C		
	Prevathon	0.43	15	fl oz/a	0.0504	lb ai/a	IfNeeded	D		
	NIS		0.25	% v/v	0.25	% v/v	IfNeeded	D		
2	Canopy EX	29.5	1.5	oz/a	0.0277	lb ai/a	PRE	A	70	70
	Cinch	7.64	1	pt/a	0.955	lb ai/a	PRE	A		
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B		
	FLexstar GT	3.29	3.5	pt/a	1.44	lb ai/a	POST	B		
	Classic	25	0.33	oz/a	0.00516	lb ai/a	POST	B		
	Approach	2.08	6	fl oz/a	0.0975	lb ai/a	POST	C		
	NIS		0.25	% v/v	0.25	% v/v	POST	C		
	Prevathon	0.43	15	fl oz/a	0.0504	lb ai/a	IfNeeded	D		
	NIS		0.25	% v/v	0.25	% v/v	IfNeeded	D		
3	Canopy DF	75	4	oz/a	0.2	% v/v	PRE	A	75	85
	Cinch	7.64	1	pt/a	0.955	lb ai/a	PRE	A		
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B		
	Flexstar GT	3.29	3.5	pt/a	1.44	lb ai/a	POST	B		
	Classic	25	0.33	oz/a	0.00516	lb ai/a	POST	B		
	Approach	2.08	6	fl oz/a	0.0975	lb ai/a	POST	C		
	NIS		0.25	% v/v	0.25	% v/v	POST	C		
	Prevathon	0.43	15	fl oz/a	0.0504	lb ai/a	IfNeeded	D		
	NIS		0.25	% v/v	0.25	% v/v	IfNeeded	D		
4	Nontreated								0	0

School of Plant, Environmental, and Soil Sciences

DuPont Soybean Herbicide Programs

Trial ID: 12SB02JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed
Pest Code	ECHCG	IPOLA
Pest Scientific Name	Echinochloa cr>	Ipomoea lacuno>
Pest Name	Common barnyar>	Pitted morning>
Rating Date	Jun/15/2012	Jun/15/2012
Rating Type	Control	Control
Rating Unit	%	%
LSD (P=.05)	.	.
Standard Deviation	.	.
CV	.	.
Bartlett's X2	.	.
P(Bartlett's X2)	.	.
Skewness	-1.9738	-1.856
Kurtosis	3.9182	3.4869

School of Plant, Environmental, and Soil Sciences

DuPont Soybean Herbicide Programs

Trial ID: 12SB02JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed
Pest Code	SIDSP	ECHCG
Pest Scientific Name	Sida spinosa	Echinochloa cr>
Pest Name	Prickly sida	Common barnyar>
Crop Code	GLXMA	
BBCH Scale	BSOY	
Crop Scientific Name	Glycine max	
Crop Name	Soybean	
Rating Date	Jun/15/2012	Jun/15/2012
Rating Type	Control	Injury
Rating Unit	%	%
Rating Unit	%	%

Trt	Treatment	Form	Rate	Other	Other	Growth	Appl			
No.	Name	Conc	Rate	Unit	Rate	Unit	Stage	Code		
1	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	95	0
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B		95
	Flexstar GT	3.29	3.5	pt/a	1.44	lb ai/a	POST	B		
	Classic	25	0.33	oz/a	0.00516	lb ai/a	POST	B		
	Aproach	2.08	6	fl oz/a	0.0975	lb ai/a	POST	C		
	NIS		0.25	% v/v	0.25	% v/v	POST	C		
	Prevathon	0.43	15	fl oz/a	0.0504	lb ai/a	IfNeeded	D		
	NIS		0.25	% v/v	0.25	% v/v	IfNeeded	D		
2	Canopy EX	29.5	1.5	oz/a	0.0277	lb ai/a	PRE	A	60	0
	Cinch	7.64	1	pt/a	0.955	lb ai/a	PRE	A		95
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B		
	FLexstar GT	3.29	3.5	pt/a	1.44	lb ai/a	POST	B		
	Classic	25	0.33	oz/a	0.00516	lb ai/a	POST	B		
	Aproach	2.08	6	fl oz/a	0.0975	lb ai/a	POST	C		
	NIS		0.25	% v/v	0.25	% v/v	POST	C		
	Prevathon	0.43	15	fl oz/a	0.0504	lb ai/a	IfNeeded	D		
	NIS		0.25	% v/v	0.25	% v/v	IfNeeded	D		
3	Canopy DF	75	4	oz/a	0.2	% v/v	PRE	A	75	0
	Cinch	7.64	1	pt/a	0.955	lb ai/a	PRE	A		95
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B		
	Flexstar GT	3.29	3.5	pt/a	1.44	lb ai/a	POST	B		
	Classic	25	0.33	oz/a	0.00516	lb ai/a	POST	B		
	Aproach	2.08	6	fl oz/a	0.0975	lb ai/a	POST	C		
	NIS		0.25	% v/v	0.25	% v/v	POST	C		
	Prevathon	0.43	15	fl oz/a	0.0504	lb ai/a	IfNeeded	D		
	NIS		0.25	% v/v	0.25	% v/v	IfNeeded	D		
4	Nontreated								0	0

School of Plant, Environmental, and Soil Sciences

DuPont Soybean Herbicide Programs

Trial ID: 12SB02JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed
Pest Code	SIDSP	ECHCG
Pest Scientific Name	Sida spinosa	Echinochloa cr>
Pest Name	Prickly sida	Common barnyar>
Crop Code	GLXMA	
BBCH Scale	BSOY	
Crop Scientific Name	Glycine max	
Crop Name	Soybean	
Rating Date	Jun/15/2012	Jun/15/2012
Rating Type	Control	Injury
Rating Unit	%	%
LSD (P=.05)	.	.
Standard Deviation	.	.
CV	.	.
Bartlett's X2	.	.
P(Bartlett's X2)	.	.
Skewness	-1.2837	-2.0
Kurtosis	1.9483	4.0

School of Plant, Environmental, and Soil Sciences

DuPont Soybean Herbicide Programs

Trial ID: 12SB02JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed	
Pest Code	IPOLA	SIDSP	
Pest Scientific Name	Ipomoea lacuno>	Sida spinosa	
Pest Name	Pitted morning>	Prickly sida	
Crop Code			GLXMA
BBCH Scale			BSOY
Crop Scientific Name			Glycine max
Crop Name			Soybean
Rating Date	Jun/29/2012	Jun/29/2012	Jun/29/2012
Rating Type	Control	Control	Injury
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate Rate	Other Unit	Other Rate	Growth Unit	Stage	Appl Code			
1	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	95	100	5
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B			
	Flexstar GT	3.29	3.5	pt/a	1.44	lb ai/a	POST	B			
	Classic	25	0.33	oz/a	0.00516	lb ai/a	POST	B			
	Aproach	2.08	6	fl oz/a	0.0975	lb ai/a	POST	C			
	NIS		0.25	% v/v	0.25	% v/v	POST	C			
	Prevathon	0.43	15	fl oz/a	0.0504	lb ai/a	IfNeeded	D			
	NIS		0.25	% v/v	0.25	% v/v	IfNeeded	D			
2	Canopy EX	29.5	1.5	oz/a	0.0277	lb ai/a	PRE	A	95	100	5
	Cinch	7.64	1	pt/a	0.955	lb ai/a	PRE	A			
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B			
	FLexstar GT	3.29	3.5	pt/a	1.44	lb ai/a	POST	B			
	Classic	25	0.33	oz/a	0.00516	lb ai/a	POST	B			
	Aproach	2.08	6	fl oz/a	0.0975	lb ai/a	POST	C			
	NIS		0.25	% v/v	0.25	% v/v	POST	C			
	Prevathon	0.43	15	fl oz/a	0.0504	lb ai/a	IfNeeded	D			
	NIS		0.25	% v/v	0.25	% v/v	IfNeeded	D			
3	Canopy DF	75	4	oz/a	0.2	% v/v	PRE	A	95	100	5
	Cinch	7.64	1	pt/a	0.955	lb ai/a	PRE	A			
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B			
	Flexstar GT	3.29	3.5	pt/a	1.44	lb ai/a	POST	B			
	Classic	25	0.33	oz/a	0.00516	lb ai/a	POST	B			
	Aproach	2.08	6	fl oz/a	0.0975	lb ai/a	POST	C			
	NIS		0.25	% v/v	0.25	% v/v	POST	C			
	Prevathon	0.43	15	fl oz/a	0.0504	lb ai/a	IfNeeded	D			
	NIS		0.25	% v/v	0.25	% v/v	IfNeeded	D			
4	Nontreated								0	0	0

School of Plant, Environmental, and Soil Sciences

DuPont Soybean Herbicide Programs

Trial ID: 12SB02JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed	
Pest Code	IPOLA	SIDSP	
Pest Scientific Name	Ipomoea lacuno>	Sida spinosa	
Pest Name	Pitted morning>	Prickly sida	
Crop Code			GLXMA
BBCH Scale			BSOY
Crop Scientific Name			Glycine max
Crop Name			Soybean
Rating Date	Jun/29/2012	Jun/29/2012	Jun/29/2012
Rating Type	Control	Control	Injury
Rating Unit	%	%	%
LSD (P=.05)	.	.	.
Standard Deviation	.	.	.
CV	.	.	.
Bartlett's X2	.	.	.
P(Bartlett's X2)	.	.	.
Skewness	-2.0	-2.0	-2.0
Kurtosis	4.0	4.0	4.0

School of Plant, Environmental, and Soil Sciences

DuPont Soybean Herbicide Programs

Trial ID: 12SB02JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed
Pest Code	ECHCG	IPOLA
Pest Scientific Name	Echinochloa cr>	Ipomoea lacuno>
Pest Name	Common barnyar>	Pitted morning>
Rating Date	Jul/13/2012	Jul/13/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt	Treatment	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Rate	Unit	Rate	Unit	Stage	Code	
1	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	98
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B	
	Flexstar GT	3.29	3.5	pt/a	1.44	lb ai/a	POST	B	
	Classic	25	0.33	oz/a	0.00516	lb ai/a	POST	B	
	Aproach	2.08	6	fl oz/a	0.0975	lb ai/a	POST	C	
	NIS		0.25	% v/v	0.25	% v/v	POST	C	
	Prevathon	0.43	15	fl oz/a	0.0504	lb ai/a	IfNeeded	D	
	NIS		0.25	% v/v	0.25	% v/v	IfNeeded	D	
2	Canopy EX	29.5	1.5	oz/a	0.0277	lb ai/a	PRE	A	95
	Cinch	7.64	1	pt/a	0.955	lb ai/a	PRE	A	
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B	
	FLexstar GT	3.29	3.5	pt/a	1.44	lb ai/a	POST	B	
	Classic	25	0.33	oz/a	0.00516	lb ai/a	POST	B	
	Aproach	2.08	6	fl oz/a	0.0975	lb ai/a	POST	C	
	NIS		0.25	% v/v	0.25	% v/v	POST	C	
	Prevathon	0.43	15	fl oz/a	0.0504	lb ai/a	IfNeeded	D	
	NIS		0.25	% v/v	0.25	% v/v	IfNeeded	D	
3	Canopy DF	75	4	oz/a	0.2	% v/v	PRE	A	95
	Cinch	7.64	1	pt/a	0.955	lb ai/a	PRE	A	
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B	
	Flexstar GT	3.29	3.5	pt/a	1.44	lb ai/a	POST	B	
	Classic	25	0.33	oz/a	0.00516	lb ai/a	POST	B	
	Aproach	2.08	6	fl oz/a	0.0975	lb ai/a	POST	C	
	NIS		0.25	% v/v	0.25	% v/v	POST	C	
	Prevathon	0.43	15	fl oz/a	0.0504	lb ai/a	IfNeeded	D	
	NIS		0.25	% v/v	0.25	% v/v	IfNeeded	D	
4	Nontreated								0

School of Plant, Environmental, and Soil Sciences

DuPont Soybean Herbicide Programs

Trial ID: 12SB02JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed
Pest Code	ECHCG	IPOLA
Pest Scientific Name	Echinochloa cr>	Ipomoea lacuno>
Pest Name	Common barnyar>	Pitted morning>
Rating Date	Jul/13/2012	Jul/13/2012
Rating Type	Control	Control
Rating Unit	%	%
LSD (P=.05)	.	.
Standard Deviation	.	.
CV	.	.
Bartlett's X2	.	.
P(Bartlett's X2)	.	.
Skewness	-1.9948	-1.9599
Kurtosis	3.983	3.8767

School of Plant, Environmental, and Soil Sciences

DuPont Soybean Herbicide Programs

Trial ID: 12SB02JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed		
Pest Code	SIDSP		
Pest Scientific Name	Sida spinosa		
Pest Name	Prickly sida		
Crop Code		GLXMA	GLXMA
BBCH Scale		BSOY	BSOY
Crop Scientific Name		Glycine max	Glycine max
Crop Name		Soybean	Soybean
Rating Date	Jul/13/2012	Jul/13/2012	Oct/9/2012
Rating Type	Control	Injury	Moisture
Rating Unit	%	%	%

Trt No.	Treatment Name	Form	Rate	Other Rate	Other Rate	Growth Unit	Stage	Appl Code			
1	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	98	0	11.0
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B			
	Flexstar GT	3.29	3.5	pt/a	1.44	lb ai/a	POST	B			
	Classic	25	0.33	oz/a	0.00516	lb ai/a	POST	B			
	Aproach	2.08	6	fl oz/a	0.0975	lb ai/a	POST	C			
	NIS		0.25	% v/v	0.25	% v/v	POST	C			
	Prevathon	0.43	15	fl oz/a	0.0504	lb ai/a	IfNeeded	D			
	NIS		0.25	% v/v	0.25	% v/v	IfNeeded	D			
2	Canopy EX	29.5	1.5	oz/a	0.0277	lb ai/a	PRE	A	95	0	11.1
	Cinch	7.64	1	pt/a	0.955	lb ai/a	PRE	A			
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B			
	FLexstar GT	3.29	3.5	pt/a	1.44	lb ai/a	POST	B			
	Classic	25	0.33	oz/a	0.00516	lb ai/a	POST	B			
	Aproach	2.08	6	fl oz/a	0.0975	lb ai/a	POST	C			
	NIS		0.25	% v/v	0.25	% v/v	POST	C			
	Prevathon	0.43	15	fl oz/a	0.0504	lb ai/a	IfNeeded	D			
	NIS		0.25	% v/v	0.25	% v/v	IfNeeded	D			
3	Canopy DF	75	4	oz/a	0.2	% v/v	PRE	A	95	0	11.2
	Cinch	7.64	1	pt/a	0.955	lb ai/a	PRE	A			
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B			
	Flexstar GT	3.29	3.5	pt/a	1.44	lb ai/a	POST	B			
	Classic	25	0.33	oz/a	0.00516	lb ai/a	POST	B			
	Aproach	2.08	6	fl oz/a	0.0975	lb ai/a	POST	C			
	NIS		0.25	% v/v	0.25	% v/v	POST	C			
	Prevathon	0.43	15	fl oz/a	0.0504	lb ai/a	IfNeeded	D			
	NIS		0.25	% v/v	0.25	% v/v	IfNeeded	D			
4	Nontreated								0	0	11.3

School of Plant, Environmental, and Soil Sciences

DuPont Soybean Herbicide Programs

Trial ID: 12SB02JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed		
Pest Code	SIDSP		
Pest Scientific Name	Sida spinosa		
Pest Name	Prickly sida		
Crop Code		GLXMA	GLXMA
BBCH Scale		BSOY	BSOY
Crop Scientific Name		Glycine max	Glycine max
Crop Name		Soybean	Soybean
Rating Date	Jul/13/2012	Jul/13/2012	Oct/9/2012
Rating Type	Control	Injury	Moisture
Rating Unit	%	%	%
LSD (P=.05)	.	.	.
Standard Deviation	.	.	.
CV	.	.	.
Bartlett's X2	.	.	.
P(Bartlett's X2)	.	.	.
Skewness	-1.9948	.	0.0
Kurtosis	3.983	.	-1.2

School of Plant, Environmental, and Soil Sciences

DuPont Soybean Herbicide Programs

Trial ID: 12SB02JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Crop Code	GLXMA	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean
Rating Date	Oct/9/2012	Oct/9/2012	Oct/9/2012
Rating Type	Test Weight	Yield	Yield
Rating Unit	lb/bu	kg	bu/A

Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	Envive	41.3	3.5 oz/a	0.09	lb ai/a	PRE	A	54.9	5.401	44.2
	Roundup Powermax	5.5	22 fl oz/a	0.95	lb ai/a	POST	B			
	Flexstar GT	3.29	3.5 pt/a	1.44	lb ai/a	POST	B			
	Classic	25	0.33 oz/a	0.00516	lb ai/a	POST	B			
	Aproach	2.08	6 fl oz/a	0.0975	lb ai/a	POST	C			
	NIS		0.25 % v/v	0.25	% v/v	POST	C			
	Prevathon	0.43	15 fl oz/a	0.0504	lb ai/a	IfNeeded	D			
	NIS		0.25 % v/v	0.25	% v/v	IfNeeded	D			
2	Canopy EX	29.5	1.5 oz/a	0.0277	lb ai/a	PRE	A	55.2	5.326	43.6
	Cinch	7.64	1 pt/a	0.955	lb ai/a	PRE	A			
	Roundup Powermax	5.5	22 fl oz/a	0.95	lb ai/a	POST	B			
	FLexstar GT	3.29	3.5 pt/a	1.44	lb ai/a	POST	B			
	Classic	25	0.33 oz/a	0.00516	lb ai/a	POST	B			
	Aproach	2.08	6 fl oz/a	0.0975	lb ai/a	POST	C			
	NIS		0.25 % v/v	0.25	% v/v	POST	C			
	Prevathon	0.43	15 fl oz/a	0.0504	lb ai/a	IfNeeded	D			
	NIS		0.25 % v/v	0.25	% v/v	IfNeeded	D			
3	Canopy DF	75	4 oz/a	0.2	% v/v	PRE	A	55.0	6.250	51.1
	Cinch	7.64	1 pt/a	0.955	lb ai/a	PRE	A			
	Roundup Powermax	5.5	22 fl oz/a	0.95	lb ai/a	POST	B			
	Flexstar GT	3.29	3.5 pt/a	1.44	lb ai/a	POST	B			
	Classic	25	0.33 oz/a	0.00516	lb ai/a	POST	B			
	Aproach	2.08	6 fl oz/a	0.0975	lb ai/a	POST	C			
	NIS		0.25 % v/v	0.25	% v/v	POST	C			
	Prevathon	0.43	15 fl oz/a	0.0504	lb ai/a	IfNeeded	D			
	NIS		0.25 % v/v	0.25	% v/v	IfNeeded	D			
4	Nontreated							54.9	4.316	35.2

School of Plant, Environmental, and Soil Sciences

DuPont Soybean Herbicide Programs

Trial ID: 12SB02JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Crop Code	GLXMA	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean
Rating Date	Oct/9/2012	Oct/9/2012	Oct/9/2012
Rating Type	Test Weight	Yield	Yield
Rating Unit	lb/bu	kg	bu/A
LSD (P=.05)	.	.	.
Standard Deviation	.	.	.
CV	.	.	.
Bartlett's X2	.	.	.
P(Bartlett's X2)	.	.	.
Skewness	1.4142	-0.3031	-0.3449
Kurtosis	1.5	1.5068	1.5148

Envive and Canopy Plus Zidua Test
LSU AgCenter
School of Plant, Environmental, and Soil Sciences

Experiment number : 12SB03JG
Location..... : Ben Hur Research Farm
Experimental design : Randomized Complete Block
Number of reps : 4
Plot size : 11.25' x 25' (6' x 25' treated)
Row width/# per plot : 15"/3
Soil type..... : clay loam
OM (%)..... : 1.9
pH : 6.3
Planting date : 5-17-12
Harvest date : 10-10-12
Crop/Variety : Soybean/Pioneer 95Y31
Uniform std. treatment..... : N/A

Application type	PRE A	POST B
Date applied (mm-dd-yy)	5-17-12	6-15-12
Time (hh:mm-hh:mm)	4:00-4:30pm	1:45-2:00pm
Incorporation equipment.....	N/A	N/A
Incorporation depth.....	N/A	N/A
Air/Soil temperature (F)	85/86	85/85
Wind (mph/direction)	4/NW	6/NE
Relative humidity (%)	32	62
Soil/Leaf surface moist.....	dry/N/A	moist/dry
Crop stage/height.....	N/A	V4-V5/10-12"
Sprayer type/mph.....	CO ₂ bkpk/3.0	CO ₂ bkpk/3.0
Nozzle type/size.....	FF/TTI11002	FF/TTI11002
Boom ht/#noz/spacing (in)	15"/4/18"	15"/4/18"
GPA/psi (at nozzle)	15/28	15/28
Applied by	Bauerle	Bauerle

Weed species	population per ft ² /height/# leaves	
ECHCG	N/A	2-6/2-8" (most 2-3")/2-8
IPOLA	N/A	2-7/2"-running (most 2-4")/1-5
SIDSP	N/A	2-10/1-3"/1-3
SEBEX	N/A	0-4/2-8"/2-8

Rainfall (in.)		
0-24 hr/1-3 days.....	0.00/0.00	1.11/0.57
4-7 days/2nd week.....	0.00/0.21	0.01/0.31
3rd week/4th week.....	4.37/0.95	0.42/3.18

Comments:

Insecticide treatments consisted of 1 lb/A Orthene + 3 oz/A Belt applied on 8-23-12 and 0.5 lb/A Orthene + 6 oz/A Discipline applied on 9-5-12.

Harvest aid was applied at R7 growth stage on 9-22-12; 16 oz/A Gramoxone + 1.5 oz/A Aim + 0.25% v/v Induce in 15 GPA.

School of Plant, Environmental, and Soil Sciences

Envive and Canopy Plus Zidua Test

Trial ID: 12SB03JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed	W Weed
Pest Code	ECHCG	IPOLA	SIDSP
Pest Scientific Name	Echinochloa cr>Ipomoea lacuno>	Sida spinosa	
Pest Name	Common barnyar>	Pitted morning>	Prickly sida
Rating Date	Jun/15/2012	Jun/15/2012	Jun/15/2012
Rating Type	Control	Control	Control
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	80a	71ab	76a
	Zidua	85	1.5	oz/a	0.08	lb ai/a	PRE	A			
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25	% v/v	POST	B			
2	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	81a	75a	79a
	Zidua	85	1	oz/a	0.053	lb ai/a	PRE	A			
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25	% v/v	POST	B			
3	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	76a	69ab	71a
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25	% v/v	POST	B			
4	Canopy	75	4	oz/a	0.188	lb ai/a	PRE	A	81a	55bc	63ab
	Zidua	85	1.5	oz/a	0.08	lb ai/a	PRE	A			
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25	% v/v	POST	B			
5	Canopy	75	4	oz/a	0.188	lb ai/a	PRE	A	74a	53c	53b
	Zidua	85	1	oz/a	0.053	lb ai/a	PRE	A			
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25	% v/v	POST	B			
6	Canopy	75	4	oz/a	0.188	lb ai/a	PRE	A	70a	69ab	75a
	Fierce	76	2	oz/a	0.095	lb ai/a	PRE	A			
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25	% v/v	POST	B			
7	Canopy	75	4	oz/a	0.188	lb ai/a	PRE	A	75a	71ab	75a
	Fierce	76	1.5	oz/a	0.071	lb ai/a	PRE	A			
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25	% v/v	POST	B			

School of Plant, Environmental, and Soil Sciences

Envive and Canopy Plus Zidua Test

Trial ID: 12SB03JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed		
Pest Code	ECHCG		
Pest Scientific Name	Echinochloa cr>Ipomoea lacuno>Sida spinosa		
Pest Name	Common barnyar>Pitted morning>Prickly sida		
Rating Date	Jun/15/2012		
Rating Type	Control		
Rating Unit	%		

Trt No.	Treatment Name	Form Conc	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
8	Canopy	75	4	oz/a	0.188	lb ai/a	PRE	A	70a	45c	46b
	Cinch	7.64	1	pt/a	0.955	lb ai/a	PRE	A			
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25	% v/v	POST	B			
9	Zidua	85	2	oz/a	0.106	lb ai/a	PRE	A	76a	50c	53b
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25	% v/v	POST	B			
10	Nontreated								0b	0d	0c

LSD (P=.05)	15.8	12.0	13.6
Standard Deviation	10.9	8.2	9.4
CV	15.93	14.8	15.9
Bartlett's X2	3.019	10.266	4.964
P(Bartlett's X2)	0.933	0.247	0.761
Skewness	-1.8508*	-1.3942*	-
1.045*			
Kurtosis	2.8665*	1.5375*	1.0803
Replicate F	3.772	0.796	6.158
Replicate Prob(F)	0.0221	0.5069	0.0025
Treatment F	20.028	29.106	25.718
Treatment Prob(F)	0.0001	0.0001	0.0001

School of Plant, Environmental, and Soil Sciences

Envive and Canopy Plus Zidua Test

Trial ID: 12SB03JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type										W Weed	W Weed
Pest Code										ECHCG	IPOLA
Pest Scientific Name										Echinochloa cr>	Ipomoea lacuno>
Pest Name										Common barnyar>	Pitted morning>
Crop Code									GLXMA		
BBCH Scale									BSOY		
Crop Scientific Name									Glycine max		
Crop Name									Soybean		
Rating Date									Jun/15/2012	Jun/29/2012	Jun/29/2012
Rating Type									Injury	Control	Control
Rating Unit									%	%	%
Trt No.	Treatment Name	Form	Rate	Other Rate	Other Rate	Growth Stage	Appl Code				
1	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE A	0a		95a	83a
	Zidua	85	1.5	oz/a	0.08	lb ai/a	PRE A				
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST B				
	Quest		0.25	% v/v	0.25	% v/v	POST B				
2	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE A	0a		94a	80ab
	Zidua	85	1	oz/a	0.053	lb ai/a	PRE A				
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST B				
	Quest		0.25	% v/v	0.25	% v/v	POST B				
3	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE A	0a		95a	88a
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST B				
	Quest		0.25	% v/v	0.25	% v/v	POST B				
4	Canopy	75	4	oz/a	0.188	lb ai/a	PRE A	0a		95a	88a
	Zidua	85	1.5	oz/a	0.08	lb ai/a	PRE A				
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST B				
	Quest		0.25	% v/v	0.25	% v/v	POST B				
5	Canopy	75	4	oz/a	0.188	lb ai/a	PRE A	0a		91a	86a
	Zidua	85	1	oz/a	0.053	lb ai/a	PRE A				
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST B				
	Quest		0.25	% v/v	0.25	% v/v	POST B				
6	Canopy	75	4	oz/a	0.188	lb ai/a	PRE A	0a		94a	79ab
	Fierce	76	2	oz/a	0.095	lb ai/a	PRE A				
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST B				
	Quest		0.25	% v/v	0.25	% v/v	POST B				
7	Canopy	75	4	oz/a	0.188	lb ai/a	PRE A	0a		93a	85a
	Fierce	76	1.5	oz/a	0.071	lb ai/a	PRE A				
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST B				
	Quest		0.25	% v/v	0.25	% v/v	POST B				

School of Plant, Environmental, and Soil Sciences

Envive and Canopy Plus Zidua Test

Trial ID: 12SB03JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type									W Weed	W Weed
Pest Code									ECHCG	IPOLA
Pest Scientific Name									Echinochloa cr>	Ipomoea lacuno>
Pest Name									Common barnyar>	Pitted morning>
Crop Code								GLXMA		
BBCH Scale								BSOY		
Crop Scientific Name								Glycine max		
Crop Name								Soybean		
Rating Date								Jun/15/2012	Jun/29/2012	Jun/29/2012
Rating Type								Injury	Control	Control
Rating Unit								%	%	%
Trt No.	Treatment Name	Form Conc	Rate Rate	Other Unit	Other Rate	Growth Unit	Appl Stage	Code		
8	Canopy	75	4	oz/a	0.188 lb ai/a	PRE	A	0a	93a	79ab
	Cinch	7.64	1	pt/a	0.955 lb ai/a	PRE	A			
	Roundup Powermax4.5	22		fl oz/a	0.77 lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25 % v/v	POST	B			
9	Zidua	85	2	oz/a	0.106 lb ai/a	PRE	A	0a	94a	76ab
	Roundup Powermax4.5	22		fl oz/a	0.77 lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25 % v/v	POST	B			
10	Nontreated							0a	87b	68b
LSD (P=.05)									0.0	3.9
Standard Deviation									0.0	2.7
CV									0.0	2.91
Bartlett's X2									0.0	4.973
P(Bartlett's X2)									.	0.547
Skewness									.	-2.0552*
Kurtosis									.	4.3843*
Replicate F									0.000	3.054
Replicate Prob(F)									1.0000	0.0454
Treatment F									0.000	3.221
Treatment Prob(F)									1.0000	0.0088
										0.0069

School of Plant, Environmental, and Soil Sciences

Envive and Canopy Plus Zidua Test

Trial ID: 12SB03JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed
Pest Code	SIDSP	ECHCG
Pest Scientific Name	Sida spinosa	Echinochloa cr>
Pest Name	Prickly sida	Common barnyar>
Crop Code	GLXMA	
BBCH Scale	BSOY	
Crop Scientific Name	Glycine max	
Crop Name	Soybean	
Rating Date	Jun/29/2012	Jun/29/2012
Rating Type	Control	Injury
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Rate Rate	Other Unit	Other Rate	Other Unit	Growth Stage	Appl Code			
1	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	95a	0a	94a
	Zidua	85	1.5	oz/a	0.08	lb ai/a	PRE	A			
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25	% v/v	POST	B			
2	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	95a	0a	94a
	Zidua	85	1	oz/a	0.053	lb ai/a	PRE	A			
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25	% v/v	POST	B			
3	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	95a	1a	93a
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25	% v/v	POST	B			
4	Canopy	75	4	oz/a	0.188	lb ai/a	PRE	A	95a	3a	93a
	Zidua	85	1.5	oz/a	0.08	lb ai/a	PRE	A			
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25	% v/v	POST	B			
5	Canopy	75	4	oz/a	0.188	lb ai/a	PRE	A	95a	1a	95a
	Zidua	85	1	oz/a	0.053	lb ai/a	PRE	A			
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25	% v/v	POST	B			
6	Canopy	75	4	oz/a	0.188	lb ai/a	PRE	A	95a	0a	90a
	Fierce	76	2	oz/a	0.095	lb ai/a	PRE	A			
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25	% v/v	POST	B			
7	Canopy	75	4	oz/a	0.188	lb ai/a	PRE	A	95a	0a	94a
	Fierce	76	1.5	oz/a	0.071	lb ai/a	PRE	A			
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25	% v/v	POST	B			

School of Plant, Environmental, and Soil Sciences

Envive and Canopy Plus Zidua Test

Trial ID: 12SB03JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed								W Weed		
Pest Code	SIDSP								ECHCG		
Pest Scientific Name	Sida spinosa								Echinochloa cr>		
Pest Name	Prickly sida								Common barnyar>		
Crop Code									GLXMA		
BBCH Scale									BSOY		
Crop Scientific Name									Glycine max		
Crop Name									Soybean		
Rating Date	Jun/29/2012								Jun/29/2012	Jul/13/2012	
Rating Type	Control								Injury	Control	
Rating Unit	%								%	%	
Trt	Treatment	Form	Rate	Other	Other	Growth	Appl				
No.	Name	Conc	Rate	Unit	Rate	Rate	Unit	Stage	Code		
8	Canopy	75	4	oz/a	0.188 lb ai/a	PRE	A	95a	0a	95a	
	Cinch	7.64	1	pt/a	0.955 lb ai/a	PRE	A				
	Roundup Powermax4.5	22		fl oz/a	0.77 lb ae/a	POST	B				
	Quest		0.25	% v/v	0.25 % v/v	POST	B				
9	Zidua	85	2	oz/a	0.106 lb ai/a	PRE	A	95a	0a	93a	
	Roundup Powermax4.5	22		fl oz/a	0.77 lb ae/a	POST	B				
	Quest		0.25	% v/v	0.25 % v/v	POST	B				
10	Nontreated							95a	0a	89a	
LSD (P=.05)								0.0	2.9	6.2	
Standard Deviation								0.0	2.0	4.2	
CV								0.0	399.07	4.58	
Bartlett's X2								0.0	2.02	11.108	
P(Bartlett's X2)								.	0.364	0.134	
Skewness								.	4.1073*	-2.5629*	
Kurtosis								.	17.5678*	8.4451*	
Replicate F								0.000	0.419	0.231	
Replicate Prob(F)								1.0000	0.7411	0.8741	
Treatment F								0.000	0.767	0.908	
Treatment Prob(F)								1.0000	0.6467	0.5327	

School of Plant, Environmental, and Soil Sciences

Envive and Canopy Plus Zidua Test

Trial ID: 12SB03JG
Location: Ben Hur Research Farm
Investigator: Dr. James L. Griffin
Study Director: Matthew Bauerle

Pest Type										W Weed	W Weed	
Pest Code										IPOLA	SIDSP	
Pest Scientific Name										Ipomoea lacuno>	Sida spinosa	
Pest Name										Pitted morning>	Prickly sida	
Crop Code												GLXMA
BBCH Scale												BSOY
Crop Scientific Name												Glycine max
Crop Name												Soybean
Rating Date										Jul/13/2012	Jul/13/2012	Jul/13/2012
Rating Type										Control	Control	Injury
Rating Unit										%	%	%
Trt No.	Treatment Name	Form Conc	Rate	Unit	Other Rate	Other Rate	Growth Stage	Appl Code				
1	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	81a		95a	0a
	Zidua	85	1.5	oz/a	0.08	lb ai/a	PRE	A				
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B				
	Quest		0.25	% v/v	0.25	% v/v	POST	B				
2	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	81a		95a	0a
	Zidua	85	1	oz/a	0.053	lb ai/a	PRE	A				
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B				
	Quest		0.25	% v/v	0.25	% v/v	POST	B				
3	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	83a		91a	0a
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B				
	Quest		0.25	% v/v	0.25	% v/v	POST	B				
4	Canopy	75	4	oz/a	0.188	lb ai/a	PRE	A	81a		95a	0a
	Zidua	85	1.5	oz/a	0.08	lb ai/a	PRE	A				
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B				
	Quest		0.25	% v/v	0.25	% v/v	POST	B				
5	Canopy	75	4	oz/a	0.188	lb ai/a	PRE	A	79a		95a	0a
	Zidua	85	1	oz/a	0.053	lb ai/a	PRE	A				
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B				
	Quest		0.25	% v/v	0.25	% v/v	POST	B				
6	Canopy	75	4	oz/a	0.188	lb ai/a	PRE	A	80a		94a	0a
	Fierce	76	2	oz/a	0.095	lb ai/a	PRE	A				
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B				
	Quest		0.25	% v/v	0.25	% v/v	POST	B				
7	Canopy	75	4	oz/a	0.188	lb ai/a	PRE	A	79a		95a	0a
	Fierce	76	1.5	oz/a	0.071	lb ai/a	PRE	A				
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B				
	Quest		0.25	% v/v	0.25	% v/v	POST	B				

School of Plant, Environmental, and Soil Sciences

Envive and Canopy Plus Zidua Test

Trial ID: 12SB03JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed	
Pest Code	IPOLA	SIDSP	
Pest Scientific Name	Ipomoea lacuno>	Sida spinosa	
Pest Name	Pitted morning>	Prickly sida	
Crop Code			GLXMA
BBCH Scale			BSOY
Crop Scientific Name			Glycine max
Crop Name			Soybean
Rating Date	Jul/13/2012	Jul/13/2012	Jul/13/2012
Rating Type	Control	Control	Injury
Rating Unit	%	%	%

Trt	Treatment	Form	Rate	Other	Other	Growth	Appl			
No.	Name	Conc	Rate	Unit	Rate	Unit	Stage	Code		
8	Canopy	75	4	oz/a	0.188 lb ai/a	PRE	A	79a	95a	0a
	Cinch	7.64	1	pt/a	0.955 lb ai/a	PRE	A			
	Roundup Powermax	4.5	22	fl oz/a	0.77 lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25 % v/v	POST	B			
9	Zidua	85	2	oz/a	0.106 lb ai/a	PRE	A	83a	95a	0a
	Roundup Powermax	4.5	22	fl oz/a	0.77 lb ae/a	POST	B			
	Quest		0.25	% v/v	0.25 % v/v	POST	B			
10	Nontreated							80a	93a	0a

LSD (P=.05)	8.9	4.4	0.0
Standard Deviation	6.1	3.0	0.0
CV	7.61	3.23	0.0
Bartlett's X2	7.094	3.024	0.0
P(Bartlett's X2)	0.627	0.22	.
Skewness	-0.0343	-4.1552*	.
Kurtosis	-0.808	17.4918*	.
Replicate F	4.000	0.450	0.000
Replicate Prob(F)	0.0177	0.7194	1.0000
Treatment F	0.230	0.780	0.000
Treatment Prob(F)	0.9871	0.6362	1.0000

School of Plant, Environmental, and Soil Sciences

Envive and Canopy Plus Zidua Test

Trial ID: 12SB03JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Crop Code	GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean
Rating Date	Oct/10/2012	Oct/10/2012	Oct/10/2012	Oct/10/2012
Rating Type	Moisture	Test Weight	Yield	Yield
Rating Unit	%	lb/bu	kg	bu/A

Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	Envive	41.3	3.5 oz/a	0.09 lb ai/a		PRE	A	11.7a	53.9a	3.530a	45.9a
	Zidua	85	1.5 oz/a	0.08 lb ai/a		PRE	A				
	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	B				
	Quest		0.25 % v/v	0.25 % v/v		POST	B				
2	Envive	41.3	3.5 oz/a	0.09 lb ai/a		PRE	A	11.5a	54.5a	3.496a	45.6a
	Zidua	85	1 oz/a	0.053 lb ai/a		PRE	A				
	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	B				
	Quest		0.25 % v/v	0.25 % v/v		POST	B				
3	Envive	41.3	3.5 oz/a	0.09 lb ai/a		PRE	A	11.6a	54.0a	3.489a	45.4a
	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	B				
	Quest		0.25 % v/v	0.25 % v/v		POST	B				
4	Canopy	75	4 oz/a	0.188 lb ai/a		PRE	A	11.7a	53.3a	3.316a	43.1a
	Zidua	85	1.5 oz/a	0.08 lb ai/a		PRE	A				
	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	B				
	Quest		0.25 % v/v	0.25 % v/v		POST	B				
5	Canopy	75	4 oz/a	0.188 lb ai/a		PRE	A	11.4a	54.1a	3.539a	46.2a
	Zidua	85	1 oz/a	0.053 lb ai/a		PRE	A				
	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	B				
	Quest		0.25 % v/v	0.25 % v/v		POST	B				
6	Canopy	75	4 oz/a	0.188 lb ai/a		PRE	A	11.6a	53.4a	3.567a	46.4a
	Fierce	76	2 oz/a	0.095 lb ai/a		PRE	A				
	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	B				
	Quest		0.25 % v/v	0.25 % v/v		POST	B				
7	Canopy	75	4 oz/a	0.188 lb ai/a		PRE	A	11.4a	54.5a	3.670a	47.8a
	Fierce	76	1.5 oz/a	0.071 lb ai/a		PRE	A				
	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	B				
	Quest		0.25 % v/v	0.25 % v/v		POST	B				

School of Plant, Environmental, and Soil Sciences

Envive and Canopy Plus Zidua Test

Trial ID: 12SB03JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Crop Code	GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycinemax
Crop Name	Soybean	Soybean	Soybean	Soybean
Rating Date	Oct/10/2012	Oct/10/2012	Oct/10/2012	Oct/10/2012
Rating Type	Moisture	Test Weight	Yield	Yield
Rating Unit	%	lb/bu	kg	bu/A

Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
8	Canopy	75	4 oz/a	0.188 lb ai/a		PRE	A	11.6a	54.3a	3.572a	46.5a
	Cinch	7.64	1 pt/a	0.955 lb ai/a		PRE	A				
	Roundup Powermax4.5	22	fl oz/a	0.77 lb ae/a		POST	B				
	Quest		0.25 % v/v	0.25 % v/v		POST	B				
9	Zidua	85	2 oz/a	0.106 lb ai/a		PRE	A	11.6a	53.2a	3.292a	42.9a
	Roundup Powermax4.5	22	fl oz/a	0.77 lb ae/a		POST	B				
	Quest		0.25 % v/v	0.25 % v/v		POST	B				
10	Nontreated							11.6a	54.5a	3.739a	48.6a

LSD (P=.05)	0.37	2.38	0.4061	5.27
Standard Deviation	0.25	1.64	0.2799	3.63
CV	2.19	3.04	7.95	7.92
Bartlett's X2	7.146	32.279	8.611	8.579
P(Bartlett's X2)	0.622	0.001*	0.474	0.477
Skewness	0.3235	-2.1755*	-0.745	-0.7151
Kurtosis	-0.9738	4.216*	0.933	0.8322
Replicate F	0.135	0.583	0.753	0.758
Replicate Prob(F)	0.9381	0.6314	0.5305	0.5276
Treatment F	0.842	0.395	0.970	0.999
Treatment Prob(F)	0.5855	0.9267	0.4853	0.4643

DuPont Soybean Herbicide Programs Test
LSU AgCenter
School of Plant, Environmental, and Soil Sciences

Experiment number : 12SB04JG
Location..... : Ben Hur Research Farm
Experimental design : Randomized Complete Block
Number of reps : 4
Plot size : 11.25' x 25' (6' x 25' treated)
Row width/# per plot : 15"/3
Soil type..... : clay loam
OM (%)..... : 1.9
pH : 6.3
Planting date : 5-17-12
Harvest date : 10-10-12
Crop/Variety : Soybean/Pioneer 95Y31
Uniform std. treatment..... : N/A

Application type	PRE A	POST B
Date applied (mm-dd-yy)	5-17-12	6-15-12
Time (hh:mm-hh:mm)	3:30-3:45pm	3:00-3:10pm
Incorporation equipment.....	N/A	N/A
Incorporation depth.....	N/A	N/A
Air/Soil temperature (F)	85/86	85/85
Wind (mph/direction)	4/NW	2-3/SE
Relative humidity (%)	32	57
Soil/Leaf surface moist.....	dry/N/A	moist/dry
Crop stage/height.....	N/A	V4-V5
Sprayer type/mph.....	CO ₂ bkpk/3.0	CO ₂ bkpk/3.0
Nozzle type/size.....	FF/TTI11002	FF/TTI11002
Boom ht/#noz/spacing (in)	15"/4/18"	15"/4/18"
GPA/psi (at nozzle)	15/28	15/28
Applied by	Bauerle	Bauerle

Weed species	population per ft ² /height/# leaves	
ECHCG	N/A	5-10/2-8" (most 2-3")/2-8
IPOLA	N/A	2-6/2"-running (most 2-4")/1-5
SIDSP	N/A	2-5/1-3"/1-3
SEBEX	N/A	0-3/2-8"/2-8

Rainfall (in.)		
0-24 hr/1-3 days.....	0.00/0.00	1.11/0.57
4-7 days/2nd week.....	0.00/0.21	0.01/0.31
3rd week/4th week.....	4.37/0.95	0.42/3.18

Comments:

Insecticide treatments consisted of 1 lb/A Orthene + 3 oz/A Belt applied on 8-23-12 and 0.5 lb/A Orthene + 6 oz/A Discipline applied on 9-5-12.

Harvest aid was applied at R7 growth stage on 9-22-12; 16 oz/A Gramoxone + 1.5 oz/A Aim + 0.25% v/v Induce in 15 GPA.

School of Plant, Environmental, and Soil Sciences

DuPont Soybean Herbicide Programs Test

Trial ID: 12SB04JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed	W Weed
Pest Code	ECHCG	IPOLA	SIDSP
Pest Scientific Name	Echinochloa cr>Ipomoea lacuno>Sidaspinosa		
Pest Name	Common barnyar>Pitted morning>Pricklysida		
Rating Date	Jun/15/2012	Jun/15/2012	Jun/15/2012
Rating Type	Control	Control	Control
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	65ab	75a	83a
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B			
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST	B			
2	Canopy	75	6	oz/a	0.28	lb ai/a	PRE	A	51b	49b	56b
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B			
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST	B			
3	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	69a	73a	86a
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B			
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST	B			
	Classic	25	0.33	oz/a	0.0825	oz ai/a	POST	B			
4	Canopy	75	6	oz/a	0.28	lb ai/a	PRE	A	54ab	49b	65b
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B			
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST	B			
	Classic	25	0.33	oz/a	0.0825	oz ai/a	POST	B			
5	Nontreated								0c	0c	0c
LSD (P=.05)									12.8	9.0	11.2
Standard Deviation									8.3	5.9	7.3
CV									17.34	11.97	12.52
Bartlett's X2									7.02	3.913	5.704
P(Bartlett's X2)									0.071	0.271	0.127
Skewness									-1.0302*	-0.8533	-1.0184
Kurtosis									0.0268	-0.3686	-0.2853
Replicate F									0.894	0.485	1.455
Replicate Prob(F)									0.4725	0.6991	0.2761
Treatment F									44.745	105.582	91.340
Treatment Prob(F)									0.0001	0.0001	0.0001

School of Plant, Environmental, and Soil Sciences

DuPont Soybean Herbicide Programs Test

Trial ID: 12SB04JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed
Pest Code	ECHCG	IPOLA
Pest Scientific Name	Echinochloa cr>	Ipomoea lacuno>
Pest Name	Common barnyar>	Pitted morning>
Crop Code	GLXMA	
BBCH Scale	BSOY	
Crop Scientific Name	Glycine max	
Crop Name	Soybean	
Rating Date	Jun/15/2012	Jun/29/2012
Rating Type	Injury	Control
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Rate Rate	Other Unit	Other Rate	Growth Stage	Appl Code			
1	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE A	0a	93a	88a
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST B			
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST B			
2	Canopy	75	6	oz/a	0.28	lb ai/a	PRE A	0a	91a	83a
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST B			
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST B			
3	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE A	0a	90a	84a
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST B			
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST B			
	Classic	25	0.33	oz/a	0.0825	oz ai/a	POST B			
4	Canopy	75	6	oz/a	0.28	lb ai/a	PRE A	0a	88a	81a
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST B			
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST B			
	Classic	25	0.33	oz/a	0.0825	oz ai/a	POST B			
5	Nontreated							0a	0b	0b

LSD (P=.05)	0.0	6.1	9.8
Standard Deviation	0.0	4.0	6.4
CV	0.0	5.48	9.51
Bartlett's X2	0.0	1.85	3.899
P(Bartlett's X2)	.	0.604	0.273
Skewness	.	-1.5706*	-1.5191*
Kurtosis	.	0.6085	0.5178
Replicate F	0.000	2.547	0.410
Replicate Prob(F)	1.0000	0.1049	0.7486
Treatment F	0.000	417.500	138.662
Treatment Prob(F)	1.0000	0.0001	0.0001

School of Plant, Environmental, and Soil Sciences

DuPont Soybean Herbicide Programs Test

Trial ID: 12SB04JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed
Pest Code	SIDSP	ECHCG
Pest Scientific Name	Sida spinosa	Echinochloa cr>
Pest Name	Prickly sida	Common barnyar>
Crop Code	GLXMA	
BBCH Scale	BSOY	
Crop Scientific Name	Glycine max	
Crop Name	Soybean	
Rating Date	Jun/29/2012	Jul/13/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt	Treatment	Form	Rate	Other	Other	Growth	Appl			
No.	Name	Conc	Rate	Unit	Rate	Unit	Stage	Code		
1	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	95a	13a
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B		94a
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST	B		
2	Canopy	75	6	oz/a	0.28	lb ai/a	PRE	A	95a	15a
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B		93a
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST	B		
3	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	95a	15a
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B		91a
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST	B		
	Classic	25	0.33	oz/a	0.0825	oz ai/a	POST	B		
4	Canopy	75	6	oz/a	0.28	lb ai/a	PRE	A	95a	14a
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B		91a
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST	B		
	Classic	25	0.33	oz/a	0.0825	oz ai/a	POST	B		
5	Nontreated								0b	0b

LSD (P=.05)	0.0	2.4	5.4
Standard Deviation	0.0	1.6	3.5
CV	0.0	14.05	4.77
Bartlett's X2	0.0	0.06	2.389
P(Bartlett's X2)	.	0.807	0.496
Skewness	-1.6245*	-1.3294*	-1.5782*
Kurtosis	0.6985	0.0722	0.6205
Replicate F	0.000	1.833	4.093
Replicate Prob(F)	1.0000	0.1948	0.0324
Treatment F	0.000	65.000	550.574
Treatment Prob(F)	1.0000	0.0001	0.0001

School of Plant, Environmental, and Soil Sciences

DuPont Soybean Herbicide Programs Test

Trial ID: 12SB04JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed	
Pest Code	IPOLA	SIDSP	
Pest Scientific Name	Ipomoea lacuno>	Sida spinosa	
Pest Name	Pitted morning>	Prickly sida	
Crop Code			GLXMA
BBCH Scale			BSOY
Crop Scientific Name			Glycine max
Crop Name			Soybean
Rating Date	Jul/13/2012	Jul/13/2012	Jul/13/2012
Rating Type	Control	Control	Injury
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	Envive	41.3	3.5 oz/a	0.09	lb ai/a	PRE	A	89a	95a	0a
	Roundup Powermax	5.5	22 fl oz/a	0.95	lb ai/a	POST	B			
	Prefix	5.29	1 qt/a	1.32	lb ai/a	POST	B			
2	Canopy	75	6 oz/a	0.28	lb ai/a	PRE	A	80a	95a	0a
	Roundup Powermax	5.5	22 fl oz/a	0.95	lb ai/a	POST	B			
	Prefix	5.29	1 qt/a	1.32	lb ai/a	POST	B			
3	Envive	41.3	3.5 oz/a	0.09	lb ai/a	PRE	A	83a	96a	1a
	Roundup Powermax	5.5	22 fl oz/a	0.95	lb ai/a	POST	B			
	Prefix	5.29	1 qt/a	1.32	lb ai/a	POST	B			
	Classic	25	0.33 oz/a	0.0825	oz ai/a	POST	B			
4	Canopy	75	6 oz/a	0.28	lb ai/a	PRE	A	85a	95a	0a
	Roundup Powermax	5.5	22 fl oz/a	0.95	lb ai/a	POST	B			
	Prefix	5.29	1 qt/a	1.32	lb ai/a	POST	B			
	Classic	25	0.33 oz/a	0.0825	oz ai/a	POST	B			
5	Nontreated							0b	0b	0a

LSD (P=.05)	15.5	1.0	1.7
Standard Deviation	10.0	0.7	1.1
CV	14.89	0.88	447.21
Bartlett's X2	0.541	0.0	0.0
P(Bartlett's X2)	0.91	.	.
Skewness	-1.3927*	-1.6233*	4.4721*
Kurtosis	0.3466	0.6967	20.0*
Replicate F	0.058	1.000	1.000
Replicate Prob(F)	0.9807	0.4262	0.4262
Treatment F	56.809	16108.779	1.000
Treatment Prob(F)	0.0001	0.0001	0.4449

School of Plant, Environmental, and Soil Sciences

DuPont Soybean Herbicide Programs Test

Trial ID: 12SB04JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed	W Weed
Pest Code	ECHCG	IPOLA	SIDSP
Pest Scientific Name	Echinochloa cr>	Ipomoea lacuno>	Sida spinosa
Pest Name	Common barnyar>	Pitted morning>	Prickly sida
Rating Date	Jul/27/2012	Jul/27/2012	Jul/27/2012
Rating Type	Control	Control	Control
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate Rate	Other Unit	Other Rate	Other Unit	Growth Stage	Appl Code			
1	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	94a	83a	95a
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B			
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST	B			
2	Canopy	75	6	oz/a	0.28	lb ai/a	PRE	A	93a	81a	95a
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B			
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST	B			
3	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	92a	83a	96a
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B			
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST	B			
	Classic	25	0.33	oz/a	0.0825	oz ai/a	POST	B			
4	Canopy	75	6	oz/a	0.28	lb ai/a	PRE	A	93a	86a	95a
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B			
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST	B			
	Classic	25	0.33	oz/a	0.0825	oz ai/a	POST	B			
5	Nontreated								0b	0b	0b
LSD (P=.05)									6.0	15.6	1.0
Standard Deviation									3.9	10.1	0.7
CV									5.27	15.25	0.88
Bartlett's X2									1.797	0.308	0.0
P(Bartlett's X2)									0.616	0.958	.
Skewness									-1.5858*	-1.3926*	-1.6233*
Kurtosis									0.6321	0.3435	0.6967
Replicate F									1.818	0.181	1.000
Replicate Prob(F)									0.1975	0.9074	0.4262
Treatment F									449.800	53.930	16108.779
Treatment Prob(F)									0.0001	0.0001	0.0001

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DuPont Soybean Herbicide Programs Test

Trial ID: 12SB04JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Crop Code										GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale										BSOY	BSOY	BSOY	BSOY
Crop Scientific Name										Glycine max	Glycine max	Glycine max	Glycine max
Crop Name										Soybean	Soybean	Soybean	Soybean
Rating Date										Jul/27/2012	Oct/10/2012	Oct/10/2012	Oct/10/2012
Rating Type										Injury	Moisture	Test Weight	Yield
Rating Unit										%	%	lb/bu	kg
Trt	Treatment	Form	Rate	Other	Other	Growth	Appl						
No.	Name	Conc	Rate	Unit	Rate	Unit	Stage	Code					
1	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	0a	11.0a	54.5a	3.256a	
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B					
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST	B					
2	Canopy	75	6	oz/a	0.28	lb ai/a	PRE	A	0a	11.1a	54.2a	3.235a	
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B					
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST	B					
3	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE	A	0a	11.1a	54.1a	3.454a	
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B					
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST	B					
	Classic	25	0.33	oz/a	0.0825	oz ai/a	POST	B					
4	Canopy	75	6	oz/a	0.28	lb ai/a	PRE	A	0a	10.9a	54.4a	3.280a	
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST	B					
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST	B					
	Classic	25	0.33	oz/a	0.0825	oz ai/a	POST	B					
5	Nontreated								0a	10.8a	54.0a	1.960b	
LSD (P=.05)									0.0	0.20	0.44	0.6336	
Standard Deviation									0.0	0.13	0.28	0.4112	
CV									0.0	1.16	0.53	13.54	
Bartlett's X2									0.0	1.592	1.438	4.169	
P(Bartlett's X2)									.	0.81	0.838	0.384	
Skewness									.	0.4519	0.3583	-1.2529*	
Kurtosis									.	0.5957	0.1579	0.811	
Replicate F									0.000	0.611	0.502	0.311	
Replicate Prob(F)									1.0000	0.6204	0.6883	0.8171	
Treatment F									0.000	2.534	1.872	8.753	
Treatment Prob(F)									1.0000	0.0951	0.1803	0.0015	

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DuPont Soybean Herbicide Programs Test

Trial ID: 12SB04JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Crop Code	GLXMA
BBCH Scale	BSOY
Crop Scientific Name	Glycine max
Crop Name	Soybean
Rating Date	Oct/10/2012
Rating Type	Yield
Rating Unit	bu/A

No.	Name	Conc	Rate	Unit	Rate	Unit	Stage	Code
1	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE A	42.7a
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST B	
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST B	
2	Canopy	75	6	oz/a	0.28	lb ai/a	PRE A	42.3a
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST B	
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST B	
3	Envive	41.3	3.5	oz/a	0.09	lb ai/a	PRE A	45.2a
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST B	
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST B	
	Classic	25	0.33	oz/a	0.0825	oz ai/a	POST B	
4	Canopy	75	6	oz/a	0.28	lb ai/a	PRE A	43.0a
	Roundup Powermax	5.5	22	fl oz/a	0.95	lb ai/a	POST B	
	Prefix	5.29	1	qt/a	1.32	lb ai/a	POST B	
	Classic	25	0.33	oz/a	0.0825	oz ai/a	POST B	
5	Nontreated							25.7b

LSD (P=.05)	8.34
Standard Deviation	5.41
CV	13.61
Bartlett's X2	4.198
P(Bartlett's X2)	0.38
Skewness	-1.2466*
Kurtosis	0.8085
Replicate F	0.316
Replicate Prob(F)	0.8134
Treatment F	8.614
Treatment Prob(F)	0.0016

Application Timing and Rates of Zidua on Soybean Growth and Yield
LSU AgCenter
School of Plant, Environmental, and Soil Sciences

Experiment number: 12SB01MH
Location.....: Ben Hur Research Farm
Experimental design: Randomized Complete Block
Number of reps: 4
Plot size: 11.25' x 25' (6' x 25' treated)
Row width/# per plot: 15"/3
Soil type.....: clay loam
OM (%).....: 1.9
pH: 6.3
Planting date: 5-16-12
Harvest date.....: 10-9-12
Crop/Variety: Soybean/Pioneer 95Y31
Uniform std. treatment.....: N/A

Application type	PRE A	POST B & C
Date applied (mm-dd-yy)	5-16-12	6-15-12
Time (hh:mm-hh:mm)	3:15-3:30pm	11:30-12:00pm
Incorporation equipment.....	N/A	N/A
Incorporation depth.....	N/A	N/A
Air/Soil temperature (F)	85/86	84/82
Wind (mph/direction)	8/E	3-4/NW
Relative humidity (%)	39	60
Soil/Leaf surface moist.....	dry/N/A	moist/dry
Crop stage/height.....	N/A	V4-V5/10-12"
Sprayer type/mpg.....	CO ₂ bkpk/3.0	CO ₂ bkpk/3.0
Nozzle type/size.....	FF/TTI11002	FF/TTI11002
Boom ht/#noz/spacing (in)	15"/4/18"	15"/4/18"
GPA/psi (at nozzle)	15/28	15/28
Applied by	Hardwick	Hardwick

Weed species	population per ft ² /height/# leaves
ECHCG	N/A 90-100/1-12"/1-8

Rainfall (in.)		
0-24 hr/1-3 days.....	0.00/0.00	1.11/0.57
4-7 days/2nd week.....	0.00/0.00	0.01/0.31
3rd week/4th week.....	3.20/2.28	0.42/3.18

Comments:

POST B and C applications made on June 15, 2012. Because weed control was excellent for all treatments, crop yield is reflective of only crop response to herbicide treatments.

Insecticide treatments consisted of 1 lb/A Orthene + 3 oz/A Belt applied on 8-23-12 and 0.5 lb/A Orthene + 6 oz/A Discipline applied on 9-5-12.

Harvest aid was applied at R7 growth stage on 9-22-12; 16 oz/A Gramoxone + 1.5 oz/A Aim + 0.25% v/v Induce in 15 GPA.

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Application Timing and Rates of Zidua on Soybean Growth and Yield

Trial ID: 12SB01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed		
Pest Code	ECHCG		
Pest Scientific Name	Echinochloa cr>		
Pest Name	Common barnyar>		
Crop Code		GLXMA	
BBCH Scale		BSOY	
Crop Scientific Name		Glycine max	
Crop Name		Soybean	Soybean
Crop Variety		95Y31	
Description	27DAPRE	27DAPRE	7DAPOST
Rating Date	Jun/15/2012	Jun/15/2012	Jun/22/2012
Rating Type	Control	Injury	Injury
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	C	0c	0a	8bcd
2	Zidua	85	1	oz wt/a	0.053	lb ai/a	PRE	A	91b	0a	3d
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	C			
3	Zidua	85	2	oz wt/a	0.106	lb ai/a	PRE	A	90b	0a	6cd
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	C			
4	Zidua	85	3	oz wt/a	0.16	lb ai/a	PRE	A	92a	0a	4d
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	C			
5	Zidua	85	4	oz wt/a	0.213	lb ai/a	PRE	A	93a	0a	6cd
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	C			
6	Zidua	85	5	oz wt/a	0.266	lb ai/a	PRE	A	94a	0a	4d
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	C			
7	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B	0c	0a	14abc
8	Zidua	85	1	oz wt/a	0.053	lb ai/a	POST	B	0c	0a	11a-d
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
9	Zidua	85	2	oz wt/a	0.106	lb ai/a	POST	B	0c	0a	16ab
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
10	Zidua	85	3	oz wt/a	0.16	lb ai/a	POST	B	0c	0a	18a
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
11	Zidua	85	4	oz wt/a	0.213	lb ai/a	POST	B	0c	0a	16ab
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			
12	Zidua	85	5	oz wt/a	0.266	lb ai/a	POST	B	0c	0a	20a
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B			

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Application Timing and Rates of Zidua on Soybean Growth and Yield

Trial ID: 12SB01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed		
Pest Code	ECHCG		
Pest Scientific Name	Echinochloa cr>		
Pest Name	Common barnyar>		
Crop Code	GLXMA		
BBCH Scale	BSOY		
Crop Scientific Name	Glycine max		
Crop Name	Soybean Soybean		
Crop Variety	95Y31		
Description	27DAPRE	27DAPRE	7DAPOST
Rating Date	Jun/15/2012	Jun/15/2012	Jun/22/2012
Rating Type	Control	Injury	Injury
Rating Unit	%	%	%
LSD (P=.05)	1.3	0.0	6.3
Standard Deviation	0.9	0.0	4.4
CV	2.36	0.0	41.92
Bartlett's X2	2.131	0.0	7.545
P(Bartlett's X2)	0.546	.	0.753
Skewness	0.3513	.	0.1016
Kurtosis	-1.9568*	.	-0.9854
Replicate F	2.536	0.000	4.298
Replicate Prob(F)	0.0736	1.0000	0.0115
Treatment F	10955.666	0.000	7.947
Treatment Prob(F)	0.0001	1.0000	0.0001

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Application Timing and Rates of Zidua on Soybean Growth and Yield

Trial ID: 12SB01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Crop Name		Soybean		Soybean		Soybean		Soybean	
Description		14DAPOST		28DAPOST		Stand Count		Plant	
Rating Date		Jun/29/2012		Jul/13/2012		Jun/22/2012		Jun/22/2012	
Rating Type		Injury		Injury		Plants/plot		Inches	
Rating Unit		%		%					
Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	C	3cd	0a
									150ab
									14a
2	Zidua	85	1 oz wt/a	0.053 lb ai/a		PRE	A	8bcd	1a
	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	C		142b
									14a
3	Zidua	85	2 oz wt/a	0.106 lb ai/a		PRE	A	9a-d	0a
	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	C		178a
									14a
4	Zidua	85	3 oz wt/a	0.16 lb ai/a		PRE	A	9a-d	0a
	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	C		152ab
									13a
5	Zidua	85	4 oz wt/a	0.213 lb ai/a		PRE	A	10abc	1a
	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	C		156ab
									13a
6	Zidua	85	5 oz wt/a	0.266 lb ai/a		PRE	A	9a-d	0a
	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	C		154ab
									14a
7	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	B	0d	0a
									156ab
									13a
8	Zidua	85	1 oz wt/a	0.053 lb ai/a		POST	B	11abc	1a
	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	B		157ab
									14a
9	Zidua	85	2 oz wt/a	0.106 lb ai/a		POST	B	16ab	0a
	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	B		154ab
									12a
10	Zidua	85	3 oz wt/a	0.16 lb ai/a		POST	B	18ab	1a
	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	B		133b
									12a
11	Zidua	85	4 oz wt/a	0.213 lb ai/a		POST	B	19a	2a
	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	B		140b
									13a
12	Zidua	85	5 oz wt/a	0.266 lb ai/a		POST	B	19a	1a
	Roundup Powermax	4.5	22 fl oz/a	0.77 lb ae/a		POST	B		148ab
									13a

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Application Timing and Rates of Zidua on Soybean Growth and Yield

Trial ID: 12SB01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Crop Name	Soybean	Soybean	Soybean	Soybean
Description	14DAPOST	28DAPOST	Stand Count	PlantHeight
Rating Date	Jun/29/2012	Jul/13/2012	Jun/22/2012	Jun/22/2012
Rating Type	Injury	Injury	Plants/plot	Inches
Rating Unit	%	%		
LSD (P=.05)	6.5	2.0	20.4	1.5
Standard Deviation	4.5	1.4	14.1	1.0
CV	41.65	259.3	9.32	7.89
Bartlett's X2	4.745	2.048	8.144	6.883
P(Bartlett's X2)	0.908	0.842	0.70	0.736
Skewness	0.4247	2.4107*	-0.6922*	0.3538
Kurtosis	-0.6124	4.7204*	1.4573*	-0.4822
Replicate F	15.817	0.651	16.184	7.879
Replicate Prob(F)	0.0001	0.5879	0.0001	0.0004
Treatment F	7.482	0.909	2.439	1.182
Treatment Prob(F)	0.0001	0.5430	0.0236	0.3363

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Application Timing and Rates of Zidua on Soybean Growth and Yield

Trial ID: 12SB01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Crop Name Description Rating Date Rating Type Rating Unit									Soybean Plant Height Jun/29/2012 Inches	Soybean Harvest Oct/3/2012 Moisture %	Soybean Harvest Oct/3/2012 Test Weight lb/bu	Soybean Harvest Oct/3/2012 Plot Wight kg
Trt No.	Treatment Name	Form Conc	Rate Rate	Unit	Other Rate	Other Rate	Growth Unit	Appl Stage Code				
1	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	C	19a	13.7a	52.2a	4.191a
2	Zidua	85	1	oz wt/a	0.053	lb ai/a	PRE	A	18a	13.6a	54.0a	4.096a
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	C				
3	Zidua	85	2	oz wt/a	0.106	lb ai/a	PRE	A	18a	13.1a	54.5a	3.695a
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	C				
4	Zidua	85	3	oz wt/a	0.16	lb ai/a	PRE	A	17a	13.6a	53.4a	3.928a
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	C				
5	Zidua	85	4	oz wt/a	0.213	lb ai/a	PRE	A	18a	13.4a	53.8a	3.664a
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	C				
6	Zidua	85	5	oz wt/a	0.266	lb ai/a	PRE	A	19a	12.8a	54.1a	3.790a
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	C				
7	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B	18a	12.7a	54.1a	3.898a
8	Zidua	85	1	oz wt/a	0.053	lb ai/a	POST	B	18a	12.5a	54.2a	3.948a
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B				
9	Zidua	85	2	oz wt/a	0.106	lb ai/a	POST	B	17a	12.6a	54.4a	4.069a
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B				
10	Zidua	85	3	oz wt/a	0.16	lb ai/a	POST	B	17a	12.6a	54.0a	4.104a
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B				
11	Zidua	85	4	oz wt/a	0.213	lb ai/a	POST	B	18a	12.3a	54.3a	3.790a
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B				
12	Zidua	85	5	oz wt/a	0.266	lb ai/a	POST	B	18a	12.8a	53.8a	3.771a
	Roundup Powermax	4.5	22	fl oz/a	0.77	lb ae/a	POST	B				

School of Plant, Environmental, and Soil Sciences

Application Timing and Rates of Zidua on Soybean Growth and Yield

Trial ID: 12SB01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Crop Name	Soybean	Soybean	Soybean	Soybean
Description	Plant Height	Harvest	Harvest	Harvest
Rating Date	Jun/29/2012	Oct/3/2012	Oct/3/2012	Oct/3/2012
Rating Type	Inches	Moisture	Test Weight	Plot Wight
Rating Unit		%	lb/bu	kg
LSD (P=.05)	1.7	1.45	1.49	0.4714
Standard Deviation	1.2	1.00	1.03	0.3265
CV	6.68	7.76	1.92	8.35
Bartlett's X2	6.602	2.567	12.594	6.21
P(Bartlett's X2)	0.83	0.995	0.321	0.859
Skewness	-0.0623	0.5495	-1.9039*	-0.3026
Kurtosis	-0.4747	-0.4324	5.5769*	-0.4275
Replicate F	13.048	6.814	5.111	50.491
Replicate Prob(F)	0.0001	0.0011	0.0053	0.0001
Treatment F	1.605	0.960	1.366	1.138
Treatment Prob(F)	0.1432	0.5004	0.2359	0.3662

School of Plant, Environmental, and Soil Sciences

Application Timing and Rates of Zidua on Soybean Growth and Yield

Trial ID: 12SB01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Crop Name	Soybean							
Description	Harvest							
Rating Date	Oct/3/2012							
Rating Type	YIELD							
Rating Unit	BU							
Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
1	Roundup Powermax	4.5	22 fl oz/a	0.77	lb ae/a	POST	C	53.3a
2	Zidua	85	1 oz wt/a	0.053	lb ai/a	PRE	A	52.1a
	Roundup Powermax	4.5	22 fl oz/a	0.77	lb ae/a	POST	C	
3	Zidua	85	2 oz wt/a	0.106	lb ai/a	PRE	A	47.3a
	Roundup Powermax	4.5	22 fl oz/a	0.77	lb ae/a	POST	C	
4	Zidua	85	3 oz wt/a	0.16	lb ai/a	PRE	A	50.0a
	Roundup Powermax	4.5	22 fl oz/a	0.77	lb ae/a	POST	C	
5	Zidua	85	4 oz wt/a	0.213	lb ai/a	PRE	A	46.8a
	Roundup Powermax	4.5	22 fl oz/a	0.77	lb ae/a	POST	C	
6	Zidua	85	5 oz wt/a	0.266	lb ai/a	PRE	A	48.6a
	Roundup Powermax	4.5	22 fl oz/a	0.77	lb ae/a	POST	C	
7	Roundup Powermax	4.5	22 fl oz/a	0.77	lb ae/a	POST	B	50.0a
8	Zidua	85	1 oz wt/a	0.053	lb ai/a	POST	B	50.8a
	Roundup Powermax	4.5	22 fl oz/a	0.77	lb ae/a	POST	B	
9	Zidua	85	2 oz wt/a	0.106	lb ai/a	POST	B	52.3a
	Roundup Powermax	4.5	22 fl oz/a	0.77	lb ae/a	POST	B	
10	Zidua	85	3 oz wt/a	0.16	lb ai/a	POST	B	52.8a
	Roundup Powermax	4.5	22 fl oz/a	0.77	lb ae/a	POST	B	
11	Zidua	85	4 oz wt/a	0.213	lb ai/a	POST	B	48.9a
	Roundup Powermax	4.5	22 fl oz/a	0.77	lb ae/a	POST	B	
12	Zidua	85	5 oz wt/a	0.266	lb ai/a	POST	B	48.4a
	Roundup Powermax	4.5	22 fl oz/a	0.77	lb ae/a	POST	B	

School of Plant, Environmental, and Soil Sciences

Application Timing and Rates of Zidua on Soybean Growth and Yield

Trial ID: 12SB01MH
Location: Ben Hur Research Farm
Investigator: Dr. James L. Griffin
Study Director: Marshall Hardwick

Crop Name	Soybean
Description	Harvest
Rating Date	Oct/3/2012
Rating Type	YIELD
Rating Unit	BU

LSD (P=.05)	5.79
Standard Deviation	4.01
CV	8.0
Bartlett's X2	6.367
P(Bartlett's X2)	0.848
Skewness	-0.3227
Kurtosis	-0.4791

Replicate F	54.597
Replicate Prob(F)	0.0001
Treatment F	1.180
Treatment Prob(F)	0.3387

BASF-Soybean Weed Control Programs with Zidua vs. Current Commercial Standards
LSU AgCenter
School of Plant, Environmental, and Soil Sciences

Experiment number : 12SB02MH
Location..... : Ben Hur Research Farm
Experimental design : Randomized Complete Block
Number of reps : 4
Plot size : 5' x 25'
Row width/# per plot : 15"/3
Soil type..... : clay loam
OM (%)..... : 1.9
pH : 6.3
Planting date : 5-16-12
Harvest date..... : 10-9-12
Crop/Variety : Soybean/Pioneer 95Y31
Uniform std. treatment..... : N/A

Application type	PRE A	POST B	POST C
Date applied (mm-dd-yy)	5-16-12	6-15-12	6-27-12
Time (hh:mm-hh:mm)	4:15-4:45pm	10:45-11:00am	10:15-10:45am
Incorporation equipment.....	N/A	N/A	N/A
Incorporation depth.....	N/A	N/A	N/A
Air/Soil temperature (F)	85/86	83/80	90/82
Wind (mph/direction)	8/E	3-4/SW	4-5/SW
Relative humidity (%)	39	64	61
Soil/Leaf surface moist.....	dry/N/A	moist/moist	moist/moist
Crop stage/height.....	N/A	V4-V5/10-12"	R1/22-25"
Sprayer type/mph.....	CO ₂ bkpk/3.0	CO ₂ bkpk/3.0	CO ₂ bkpk/3.0
Nozzle type/size.....	FF/11002VS	FF/11002VS	FF/11002VS
Boom ht/#noz/spacing (in)	18"/4/18"	18"/4/18"	18"/4/18"
GPA/psi (at nozzle)	15/28	15/28	15/28
Applied by	Hardwick	Hardwick	Hardwick

Weed species	population per ft ² /height/# leaves		
ECHCG	N/A	90-100/1-10" (most 1-3")/3-8	10-20/2-5"/2-4
IPOLA	N/A	0-2/2-5"/3	1-3/3-5"/4-10
SEBEX	N/A	0-1/2-5"/1-4	N/A

Rainfall (in.)			
0-24 hr/1-3 days.....	0.00/0.00	1.11/0.57	0.00/0.02
4-7 days/2nd week.....	0.00/0.00	0.01/0.31	0.23/2.78
3rd week/4th week.....	3.20/2.28	0.42/3.18	1.45/1.53

Comments:

Insecticide treatments consisted of 1 lb/A Orthene + 3 oz/A Belt applied on 8-23-12 and 0.5 lb/A Orthene + 6 oz/A Discipline applied on 9-5-12.

Harvest aid was applied at R7 growth stage on 9-22-12; 16 oz/A Gramoxone + 1.5 oz/A Aim + 0.25% v/v Induce in 15 GPA.

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BASF - Soybean Weed Control Programs with Zidua vs. Current Commercial Standards

Trial ID: 12SB02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	IPOSS
Pest Scientific Name	Echinochloa cr>	Ipomoea sp.
Pest Name	Common barnyar>	Morning glory
Description	27DAPRE	27DAPRE
Rating Date	Jun/15/2012	Jun/15/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	Nontreated									0c	0b
2	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	79a	70a
	Sharpen	2.85	SC	1	fl oz/a	0.0223	lb ai/a	PRE	A		
	Roundup PowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT	C		
3	Verdict	5.57	EC	5	fl oz/a	0.218	lb ai/a	PRE	A	58b	60a
	Prowl H2O	3.8	CS	2.1	pt/a	1	lb ai/a	PRE	A		
	Roundup PowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT	C		
4	Valor SX	51	WG	2	oz wt/a	0.064	lb ai/a	PRE	A	59b	73a
	Roundup PowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT	C		
5	Zidua	85	WG	1.5	oz wt/a	0.08	lb ai/a	PRE	A	74ab	78a
	Valor SX	51	WG	2	oz wt/a	0.064	lb ai/a	PRE	A		
	Roundup PowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT	C		
6	Anthem	2.15	SE	8	fl oz/a	0.134	lb ai/a	PRE	A	74ab	80a
	Roundup PowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT	C		
7	Prefix	5.29	EC	2	pt/a	1.32	lb ai/a	PRE	A	85a	83a
	Roundup PowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT	C		
8	Authority MTZ	45	DG	14	oz wt/a	0.394	lb ai/a	PRE	A	79a	84a
	Roundup PowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT	C		
9	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	80a	76a
	Zidua	85	WG	1	oz wt/a	0.053	lb ai/a	V3	B		
	Roundup PowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	V3	B		
10	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	73ab	68a
	Prefix	5.29	EC	2	pt/a	1.32	lb ai/a	V3	B		
	Roundup PowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	V3	B		
11	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	73ab	75a
	Flexstar GT 3.5	2.82	SL	3.5	pt/a	1.23	lb ae/a	6-8 WAT	C		

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BASF - Soybean Weed Control Programs with Zidua vs. Current Commercial Standards

Trial ID: 12SB02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	IPOSS
Pest Scientific Name	Echinochloa cr>	Ipomoea sp.
Pest Name	Common barnyar>	Morning glory
Description	27DAPRE	27DAPRE
Rating Date	Jun/15/2012	Jun/15/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
12	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	79a	80a
	Enlite	47.9	WG	2.8	oz wt/a	0.084	lb ai/a	PRE	A		
	Roundup PowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT	C		

LSD (P=.05)	11.6	18.7
Standard Deviation	8.1	12.9
CV	11.95	18.81
Bartlett's X2	11.778	5.284
P(Bartlett's X2)	0.30	0.871
Skewness	-2.0529*	-1.3162*
Kurtosis	3.842*	1.3353
Replicate F	2.442	11.472
Replicate Prob(F)	0.0816	0.0001
Treatment F	31.846	12.300
Treatment Prob(F)	0.0001	0.0001

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BASF - Soybean Weed Control Programs with Zidua vs. Current Commercial Standards

Trial ID: 12SB02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed
Pest Code	ECHCG
Pest Scientific Name	Echinochloa cr>
Pest Name	Common barnyar>
Crop Code	GLXMA
BBCH Scale	BSOY
Crop Scientific Name	Glycine max
Crop Name	Soybean
Crop Variety	95Y31
Description	27DAPRE 12DAPOST
Rating Date	Jun/15/2012 Jun/27/2012
Rating Type	Injury Control
Rating Unit	% %

Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Type	Rate	Unit	Rate	Unit	Stage	Code	
1	Nontreated								0a	0e
2	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	0a
	Sharpen	2.85	SC	1	fl oz/a	0.0223	lb ai/a	PRE	A	78abc
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C		
3	Verdict	5.57	EC	5	fl oz/a	0.218	lb ai/a	PRE	A	0a
	Prowl H2O	3.8	CS	2.1	pt/a	1	lb ai/a	PRE	A	50d
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C		
4	Valor SX	51	WG	2	oz wt/a	0.064	lb ai/a	PRE	A	0a
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C		55cd
5	Zidua	85	WG	1.5	oz wt/a	0.08	lb ai/a	PRE	A	0a
	Valor SX	51	WG	2	oz wt/a	0.064	lb ai/a	PRE	A	68bcd
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C		
6	Anthem	2.15	SE	8	fl oz/a	0.134	lb ai/a	PRE	A	0a
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C		70a-d
7	Prefix	5.29	EC	2	pt/a	1.32	lb ai/a	PRE	A	0a
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C		88ab
8	Authority MTZ	45	DG	14	oz wt/a	0.394	lb ai/a	PRE	A	0a
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C		69a-d
9	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	0a
	Zidua	85	WG	1	oz wt/a	0.053	lb ai/a	V3	B	95a
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	V3	B	
10	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	0a
	Prefix	5.29	EC	2	pt/a	1.32	lb ai/a	V3	B	93ab
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	V3	B	

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BASF - Soybean Weed Control Programs with Zidua vs. Current Commercial Standards

Trial ID: 12SB02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed
Pest Code	ECHCG
Pest Scientific Name	Echinochloa cr>
Pest Name	Common barnyar>
Crop Code	GLXMA
BBCH Scale	BSOY
Crop Scientific Name	Glycine max
Crop Name	Soybean
Crop Variety	95Y31
Description	27DAPRE 12DAPOST
Rating Date	Jun/15/2012 Jun/27/2012
Rating Type	Injury Control
Rating Unit	% %

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
11	Zidua	85	WG	2.5 oz wt/a	0.133	lb ai/a	PRE	A	0a	75a-d
	Flexstar GT 3.5	2.82	SL	3.5 pt/a	1.23	lb ae/a	6-8 WAT	C		
12	Zidua	85	WG	2.5 oz wt/a	0.133	lb ai/a	PRE	A	0a	73a-d
	Enlite	47.9	WG	2.8 oz wt/a	0.084	lb ai/a	PRE	A		
	RoundupPowerMax	4.5	SL	22 fl oz/a	0.77	lb ae/a	6-8 WAT	C		

LSD (P=.05)	0.0	16.4
Standard Deviation	0.0	11.4
CV	0.0	16.8
Bartlett's X2	0.0	26.479
P(Bartlett's X2)	.	0.003*
Skewness	.	-1.3371*
Kurtosis	.	1.3733*
Replicate F	0.000	1.364
Replicate Prob(F)	1.0000	0.2708
Treatment F	0.000	19.716
Treatment Prob(F)	1.0000	0.0001

School of Plant, Environmental, and Soil Sciences

BASF - Soybean Weed Control Programs with Zidua vs. Current Commercial Standards

Trial ID: 12SB02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	
Pest Code	IPOSS	
Pest Scientific Name	Ipomoea sp.	
Pest Name	Morning glory	
Crop Name		Soybean
Description	12DAPOST	12DAPOST
Rating Date	Jun/27/2012	Jun/27/2012
Rating Type	Control	Injury
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	Nontreated									0d	0c
2	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	78abc	10bc
	Sharpen	2.85	SC	1	fl oz/a	0.0223	lb ai/a	PRE	A		
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C			
3	Verdict	5.57	EC	5	fl oz/a	0.218	lb ai/a	PRE	A	56c	5bc
	Prowl H2O	3.8	CS	2.1	pt/a	1	lb ai/a	PRE	A		
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C			
4	Valor SX	51	WG	2	oz wt/a	0.064	lb ai/a	PRE	A	79abc	1c
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C			
5	Zidua	85	WG	1.5	oz wt/a	0.08	lb ai/a	PRE	A	76abc	9bc
	Valor SX	51	WG	2	oz wt/a	0.064	lb ai/a	PRE	A		
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C			
6	Anthem	2.15	SE	8	fl oz/a	0.134	lb ai/a	PRE	A	70abc	5bc
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C			
7	Prefix	5.29	EC	2	pt/a	1.32	lb ai/a	PRE	A	64bc	6bc
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C			
8	Authority MTZ	45	DG	14	oz wt/a	0.394	lb ai/a	PRE	A	81ab	0c
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C			
9	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	94a	18b
	Zidua	85	WG	1	oz wt/a	0.053	lb ai/a	V3	B		
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	V3	B		
10	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	87ab	28a
	Prefix	5.29	EC	2	pt/a	1.32	lb ai/a	V3	B		
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	V3	B		
11	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	75abc	8bc
	Flexstar GT 3.5	2.82	SL	3.5	pt/a	1.23	lb ae/a	6-8 WAT C			

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BASF - Soybean Weed Control Programs with Zidua vs. Current Commercial Standards

Trial ID: 12SB02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	
Pest Code	IPOSS	
Pest Scientific Name	Ipomoea sp.	
Pest Name	Morning glory	
Crop Name		Soybean
Description	12DAPOST	12DAPOST
Rating Date	Jun/27/2012	Jun/27/2012
Rating Type	Control	Injury
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
12	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	86ab	9bc
	Enlite	47.9	WG	2.8	oz wt/a	0.084	lb ai/a	PRE	A		
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT	C		

LSD (P=.05)	15.4	8.6
Standard Deviation	10.7	6.0
CV	15.16	73.64
Bartlett's X2	16.954	14.499
P(Bartlett's X2)	0.075	0.106
Skewness	-1.6088*	0.8233*
Kurtosis	2.5496*	-0.6417
Replicate F	3.003	5.762
Replicate Prob(F)	0.0444	0.0028
Treatment F	20.921	6.810
Treatment Prob(F)	0.0001	0.0001

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BASF - Soybean Weed Control Programs with Zidua vs. Current Commercial Standards

Trial ID: 12SB02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	IPOSS
Pest Scientific Name	Echinochloa cr>	Ipomoea sp.
Pest Name	Common barnyar>	Morning glory
Description	21DAPOST	21DAPOST
Rating Date	Jul/6/2012	Jul/6/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	Nontreated								0e	0b
2	Zidua	85	WG	2.5 oz wt/a	0.133 lb ai/a		PRE	A	85a-d	74a
	Sharpen	2.85	SC	1 fl oz/a	0.0223 lb ai/a		PRE	A		
	RoundupPowerMax	4.5	SL	22 fl oz/a	0.77 lb ae/a		6-8 WAT C			
3	Verdict	5.57	EC	5 fl oz/a	0.218 lb ai/a		PRE	A	78cd	66a
	Prowl H2O	3.8	CS	2.1 pt/a	1 lb ai/a		PRE	A		
	RoundupPowerMax	4.5	SL	22 fl oz/a	0.77 lb ae/a		6-8 WAT C			
4	Valor SX	51	WG	2 oz wt/a	0.064 lb ai/a		PRE	A	74d	75a
	RoundupPowerMax	4.5	SL	22 fl oz/a	0.77 lb ae/a		6-8 WAT C			
5	Zidua	85	WG	1.5 oz wt/a	0.08 lb ai/a		PRE	A	85a-d	74a
	Valor SX	51	WG	2 oz wt/a	0.064 lb ai/a		PRE	A		
	RoundupPowerMax	4.5	SL	22 fl oz/a	0.77 lb ae/a		6-8 WAT C			
6	Anthem	2.15	SE	8 fl oz/a	0.134 lb ai/a		PRE	A	83bcd	71a
	RoundupPowerMax	4.5	SL	22 fl oz/a	0.77 lb ae/a		6-8 WAT C			
7	Prefix	5.29	EC	2 pt/a	1.32 lb ai/a		PRE	A	89abc	65a
	RoundupPowerMax	4.5	SL	22 fl oz/a	0.77 lb ae/a		6-8 WAT C			
8	Authority MTZ	45	DG	14 oz wt/a	0.394 lb ai/a		PRE	A	81cd	76a
	RoundupPowerMax	4.5	SL	22 fl oz/a	0.77 lb ae/a		6-8 WAT C			
9	Zidua	85	WG	2.5 oz wt/a	0.133 lb ai/a		PRE	A	95a	85a
	Zidua	85	WG	1 oz wt/a	0.053 lb ai/a		V3	B		
	RoundupPowerMax	4.5	SL	22 fl oz/a	0.77 lb ae/a		V3	B		
10	Zidua	85	WG	2.5 oz wt/a	0.133 lb ai/a		PRE	A	94ab	78a
	Prefix	5.29	EC	2 pt/a	1.32 lb ai/a		V3	B		
	RoundupPowerMax	4.5	SL	22 fl oz/a	0.77 lb ae/a		V3	B		
11	Zidua	85	WG	2.5 oz wt/a	0.133 lb ai/a		PRE	A	88abc	81a
	Flexstar GT 3.5	2.82	SL	3.5 pt/a	1.23 lb ae/a		6-8 WAT C			

School of Plant, Environmental, and Soil Sciences

BASF - Soybean Weed Control Programs with Zidua vs. Current Commercial Standards

Trial ID: 12SB02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	IPOSS
Pest Scientific Name	Echinochloa cr>	Ipomoea sp.
Pest Name	Common barnyar>	Morning glory
Description	21DAPOST	21DAPOST
Rating Date	Jul/6/2012	Jul/6/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
12	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	83bcd	79a
	Enlite	47.9	WG	2.8	oz wt/a	0.084	lb ai/a	PRE	A		
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT	C		

LSD (P=.05)	7.5	14.4
Standard Deviation	5.2	10.0
CV	6.73	14.52
Bartlett's X2	9.739	7.734
P(Bartlett's X2)	0.372	0.655
Skewness	-2.623*	-1.8368*
Kurtosis	6.1293*	3.7319*
Replicate F	1.499	5.120
Replicate Prob(F)	0.2330	0.0051
Treatment F	93.028	20.106
Treatment Prob(F)	0.0001	0.0001

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BASF - Soybean Weed Control Programs with Zidua vs. Current Commercial Standards

Trial ID: 12SB02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed
Pest Code	ECHCG
Pest Scientific Name	Echinochloa cr>
Pest Name	Common barnyar>
Crop Name	Soybean
Description	21DAPOST 21DAPOST
Rating Date	Jul/6/2012 Jul/18/2012
Rating Type	Injury Control
Rating Unit	% %

Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Type	Rate	Unit	Rate	Rate	Unit	Stage	Code
1	Nontreated									0b 0d
2	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	6b 90ab
	Sharpen	2.85	SC	1	fl oz/a	0.0223	lb ai/a	PRE	A	
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8	WAT C	
3	Verdict	5.57	EC	5	fl oz/a	0.218	lb ai/a	PRE	A	3b 79bc
	Prowl H2O	3.8	CS	2.1	pt/a	1	lb ai/a	PRE	A	
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8	WAT C	
4	Valor SX	51	WG	2	oz wt/a	0.064	lb ai/a	PRE	A	0b 76c
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8	WAT C	
5	Zidua	85	WG	1.5	oz wt/a	0.08	lb ai/a	PRE	A	6b 85abc
	Valor SX	51	WG	2	oz wt/a	0.064	lb ai/a	PRE	A	
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8	WAT C	
6	Anthem	2.15	SE	8	fl oz/a	0.134	lb ai/a	PRE	A	3b 88ab
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8	WAT C	
7	Prefix	5.29	EC	2	pt/a	1.32	lb ai/a	PRE	A	4b 93a
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8	WAT C	
8	Authority MTZ	45	DG	14	oz wt/a	0.394	lb ai/a	PRE	A	0b 86abc
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8	WAT C	
9	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	6b 97a
	Zidua	85	WG	1	oz wt/a	0.053	lb ai/a	V3	B	
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	V3	B	
10	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	18a 95a
	Prefix	5.29	EC	2	pt/a	1.32	lb ai/a	V3	B	
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	V3	B	
11	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	5b 95a
	Flexstar GT 3.5	2.82	SL	3.5	pt/a	1.23	lb ae/a	6-8	WAT C	

School of Plant, Environmental, and Soil Sciences

BASF - Soybean Weed Control Programs with Zidua vs. Current Commercial Standards

Trial ID: 12SB02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed
Pest Code	ECHCG
Pest Scientific Name	Echinochloa cr>
Pest Name	Common barnyar>
Crop Name	Soybean
Description	21DAPOST 21DAPOST
Rating Date	Jul/6/2012 Jul/18/2012
Rating Type	Injury Control
Rating Unit	% %

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Other Rate	Other Rate	Other Unit	Growth Stage	Appl Code	
12	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a		PRE	A	4b
	Enlite	47.9	WG	2.8	oz wt/a	0.084	lb ai/a		PRE	A	
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a		6-8 WAT	C	85abc

LSD (P=.05)	5.6	7.9
Standard Deviation	3.9	5.4
CV	86.95	6.75
Bartlett's X2	9.048	11.349
P(Bartlett's X2)	0.338	0.183
Skewness	1.1592*	-2.6409*
Kurtosis	0.318	6.1052*
Replicate F	3.697	1.272
Replicate Prob(F)	0.0213	0.3002
Treatment F	5.953	92.444
Treatment Prob(F)	0.0001	0.0001

School of Plant, Environmental, and Soil Sciences

BASF - Soybean Weed Control Programs with Zidua vs. Current Commercial Standards

Trial ID: 12SB02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed									
Pest Code	IPOSS									
Pest Scientific Name	Ipomoea sp.									
Pest Name	Morning glory									
Crop Name	Soybean									
Description	21DAPOST									
Rating Date	Jul/18/2012									
Rating Type	Control									
Rating Unit	%									
									Soybean	Soybean
									21DAPOST	Harvest
									Jul/18/2012	Oct/9/2012
									Injury	Moisture
									%	%
Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Type	Rate	Unit	Rate	Unit	Stage	Code	
1	Nontreated								0c	0a 11.6a
2	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	92a 4a 11.5a
	Sharpen	2.85	SC	1	fl oz/a	0.0223	lb ai/a	PRE	A	
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C		
3	Verdict	5.57	EC	5	fl oz/a	0.218	lb ai/a	PRE	A	75b 8a 11.5a
	Prowl H2O	3.8	CS	2.1	pt/a	1	lb ai/a	PRE	A	
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C		
4	Valor SX	51	WG	2	oz wt/a	0.064	lb ai/a	PRE	A	89a 4a 11.4a
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C		
5	Zidua	85	WG	1.5	oz wt/a	0.08	lb ai/a	PRE	A	94a 3a 11.3a
	Valor SX	51	WG	2	oz wt/a	0.064	lb ai/a	PRE	A	
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C		
6	Anthem	2.15	SE	8	fl oz/a	0.134	lb ai/a	PRE	A	80ab 3a 11.4a
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C		
7	Prefix	5.29	EC	2	pt/a	1.32	lb ai/a	PRE	A	88a 5a 11.3a
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C		
8	Authority MTZ	45	DG	14	oz wt/a	0.394	lb ai/a	PRE	A	90a 3a 11.4a
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C		
9	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	92a 3a 11.4a
	Zidua	85	WG	1	oz wt/a	0.053	lb ai/a	V3	B	
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	V3	B	
10	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	87a 8a 11.3a
	Prefix	5.29	EC	2	pt/a	1.32	lb ai/a	V3	B	
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	V3	B	
11	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	94a 1a 11.4a
	Flexstar GT 3.5	2.82	SL	3.5	pt/a	1.23	lb ae/a	6-8 WAT C		

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BASF - Soybean Weed Control Programs with Zidua vs. Current Commercial Standards

Trial ID: 12SB02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed		
Pest Code	IPOSS		
Pest Scientific Name	Ipomoea sp.		
Pest Name	Morning glory		
Crop Name		Soybean	Soybean
Description	21DAPOST	21DAPOST	Harvest
Rating Date	Jul/18/2012	Jul/18/2012	Oct/9/2012
Rating Type	Control	Injury	Moisture
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
12	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	86a	3a	11.4a
	Enlite	47.9	WG	2.8	oz wt/a	0.084	lb ai/a	PRE	A			
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT	C			

LSD (P=.05)	8.7	5.2	0.24
Standard Deviation	6.0	3.6	0.17
CV	7.51	105.48	1.46
Bartlett's X2	11.416	6.976	21.516
P(Bartlett's X2)	0.326	0.728	0.028*
Skewness	-2.5989*	1.0134*	2.6997*
Kurtosis	5.9683*	-0.2359	12.8822*
Replicate F	5.019	8.808	6.634
Replicate Prob(F)	0.0056	0.0002	0.0012
Treatment F	73.698	1.567	1.232
Treatment Prob(F)	0.0001	0.1552	0.3056

School of Plant, Environmental, and Soil Sciences

BASF - Soybean Weed Control Programs with Zidua vs. Current Commercial Standards

Trial ID: 12SB02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Crop Name										Soybean	Soybean	Soybean
Description										Harvest	Harvest	Harvest
Rating Date										Oct/9/2012	Oct/9/2012	Oct/9/2012
Rating Type										Test Weight	Plot Weight	YIELD
Rating Unit										lb/bu	Kg	BU
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	Nontreated									54.2a	3.477a	45.2a
2	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	54.1a	3.927a	51.2a
	Sharpen	2.85	SC	1	fl oz/a	0.0223	lb ai/a	PRE	A			
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C				
3	Verdict	5.57	EC	5	fl oz/a	0.218	lb ai/a	PRE	A	54.1a	3.810a	49.6a
	Prowl H2O	3.8	CS	2.1	pt/a	1	lb ai/a	PRE	A			
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C				
4	Valor SX	51	WG	2	oz wt/a	0.064	lb ai/a	PRE	A	53.7a	4.112a	53.7a
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C				
5	Zidua	85	WG	1.5	oz wt/a	0.08	lb ai/a	PRE	A	53.8a	3.985a	52.0a
	Valor SX	51	WG	2	oz wt/a	0.064	lb ai/a	PRE	A			
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C				
6	Anthem	2.15	SE	8	fl oz/a	0.134	lb ai/a	PRE	A	53.7a	3.941a	51.4a
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C				
7	Prefix	5.29	EC	2	pt/a	1.32	lb ai/a	PRE	A	53.9a	4.175a	54.5a
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C				
8	Authority MTZ	45	DG	14	oz wt/a	0.394	lb ai/a	PRE	A	53.9a	4.297a	56.0a
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT C				
9	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	53.9a	3.846a	50.1a
	Zidua	85	WG	1	oz wt/a	0.053	lb ai/a	V3	B			
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	V3	B			
10	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	54.3a	3.719a	48.6a
	Prefix	5.29	EC	2	pt/a	1.32	lb ai/a	V3	B			
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	V3	B			
11	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	53.7a	3.850a	50.2a
	Flexstar GT 3.5	2.82	SL	3.5	pt/a	1.23	lb ae/a	6-8 WAT C				

School of Plant, Environmental, and Soil Sciences

BASF - Soybean Weed Control Programs with Zidua vs. Current Commercial Standards

Trial ID: 12SB02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Crop Name										Soybean	Soybean	Soybean
Description										Harvest	Harvest	Harvest
Rating Date										Oct/9/2012	Oct/9/2012	Oct/9/2012
Rating Type										Test Weight	Plot Weight	YIELD
Rating Unit										lb/bu	Kg	BU
Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl				
No.	Name	Conc	Type	Rate	Unit	Rate	Unit	Stage	Code			
12	Zidua	85	WG	2.5	oz wt/a	0.133	lb ai/a	PRE	A	53.8a	3.845a	50.1a
	Enlite	47.9	WG	2.8	oz wt/a	0.084	lb ai/a	PRE	A			
	RoundupPowerMax	4.5	SL	22	fl oz/a	0.77	lb ae/a	6-8 WAT	C			
LSD (P=.05)										0.62	0.4763	6.19
Standard Deviation										0.43	0.3299	4.29
CV										0.79	8.43	8.39
Bartlett's X2										15.131	5.741	5.875
P(Bartlett's X2)										0.177	0.89	0.882
Skewness										0.3391	-0.1629	-0.1622
Kurtosis										0.2901	0.0941	0.0823
Replicate F										2.477	7.457	7.788
Replicate Prob(F)										0.0786	0.0006	0.0005
Treatment F										0.870	1.715	1.762
Treatment Prob(F)										0.5763	0.1134	0.1025

Evaluation of Split Applications of Zidua in Corn
LSU AgCenter
School of Plant, Environmental, and Soil Sciences

Experiment number : 12CRN01MH
Location..... : Ben Hur Research Farm
Experimental design : Randomized Complete Block
Number of reps : 4
Plot size : 6.33' x 25'
Row width/# per plot : 38"/2
Soil type..... : clay loam
OM (%)..... : 1.9
pH : 6.3
Planting date : 4-10-12
Harvest date : 8-26-12
Crop/Variety : Corn/Pioneer 31P42
Uniform std. treatment..... : N/A

Application type	PRE A	POST B
Date applied (mm-dd-yy)	4-11-12	5-1-12
Time (hh:mm-hh:mm)	10:00-10:30am	6:30-7:00pm
Incorporation equipment.....	N/A	N/A
Incorporation depth.....	N/A	N/A
Air/Soil temperature (F)	76/68	80/78
Wind (mph/direction)	5-6/NW	8-9/SE
Relative humidity (%)	55	60
Soil/Leaf surface moist.....	dry/N/A	dry/dry
Crop stage/height.....	N/A	V4-V5/10-15"
Sprayer type/mph.....	CO ₂ bkp/3.0	CO ₂ bkp/3.0
Nozzle type/size.....	FF/TTI11002	FF/TTI11002
Boom ht/#noz/spacing (in)	15"/4/18"	15"/4/18"
GPA/psi (at nozzle)	15/28	15/28
Applied by	Hardwick	Hardwick

Weed species	population per ft ² /height/# leaves	
ECHCG	N/A	0-4/1-2/1-3
AMASS	N/A	0-10/1-2/1-4

Rainfall (in.)		
0-24 hr/1-3 days.....	0.83/0.00	0.01/2.70
4-7 days/2nd week.....	1.22/0.26	0.45/0.81
3rd week/4th week.....	2.71/0.47	0.00/0.00

Comments:

School of Plant, Environmental, and Soil Sciences

Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type					W Weed	W Weed
Pest Code					ECHCG	AMASS
Pest Scientific Name					Echinochloa cr>	Amaranthus sp.
Pest Name					Common barnyar>	Amaranth
Description					7 DAE	7 DAE
Rating Date					Apr/24/2012	Apr/24/2012
Rating Type					Control	Control
Rating Unit					%	%

Trt No.	Treatment Name	Form Conc	Rate Rate	Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	No Preemergence No Postemergence								0d	0c
2	No Preemergence Roundup Weathermax Zidua	4.5 85	22 1	fl oz/a oz wt/a	0.77 0.053	lb ae/a lb ai/a	V4 CORN B V4 CORN B		0d	0c
3	No Preemergence Roundup Weathermax Aatrex	4.5 4	22 1	fl oz/a qt/a	0.77 1	lb ae/a lb ai/a	V4 CORN B V4 CORN B		0d	0c
4	No Preemergence Roundup Weathermax Zidua Aatrex	4.5 85 4	22 1 1	fl oz/a oz wt/a qt/a	0.77 0.053 1	lb ae/a lb ai/a lb ai/a	V4 CORN B V4 CORN B V4 CORN B		0d	0c
5	Zidua No Postemergence	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	99a	100a
6	Zidua Roundup Weathermax Zidua	85 4.5 85	2.5 22 1	oz wt/a fl oz/a oz wt/a	0.133 0.77 0.053	lb ai/a lb ae/a lb ai/a	PRE V4 CORN B V4 CORN B	A	96a	99ab
7	Zidua Roundup Weathermax Aatrex	85 4.5 4	2.5 22 1	oz wt/a fl oz/a qt/a	0.133 0.77 1	lb ai/a lb ae/a lb ai/a	PRE V4 CORN B V4 CORN B	A	94a	99ab
8	Zidua Roundup Weathermax Zidua Aatrex	85 4.5 85 4	2.5 22 1 1	oz wt/a fl oz/a oz wt/a qt/a	0.133 0.77 0.053 1	lb ai/a lb ae/a lb ai/a lb ai/a	PRE V4 CORN B V4 CORN B V4 CORN B	A	96a	100a
9	Aatrex No Postemergence	4	1	qt/a	1	lb ai/a	PRE	A	63b	96b

School of Plant, Environmental, and Soil Sciences

Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type									W Weed	W Weed
Pest Code									ECHCG	AMASS
Pest Scientific Name									Echinochloa cr>	Amaranthus sp.
Pest Name									Common barnyar>	Amaranth
Description									7 DAE	7 DAE
Rating Date									Apr/24/2012	Apr/24/2012
Rating Type									Control	Control
Rating Unit									%	%
Trt No.	Treatment Name	Form Conc	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
10	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	63b	98ab
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORN B			
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORN B			
11	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	53c	96b
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORN B			
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORN B			
12	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	63b	99ab
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORN B			
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORN B			
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORN B			
13	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	98a	100a
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A		
	No Postemergence									
14	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	96a	100a
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A		
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORN B			
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORN B			
15	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	98a	100a
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A		
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORN B			
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORN B			
16	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	95a	99ab
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A		
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORN B			
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORN B			
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORN B			

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	7 DAE	7 DAE
Rating Date	Apr/24/2012	Apr/24/2012
Rating Type	Control	Control
Rating Unit	%	%
LSD (P=.05)	7.2	2.2
Standard Deviation	5.0	1.5
CV	7.94	2.07
Bartlett's X2	17.85	0.109
P(Bartlett's X2)	0.085	1.00
Skewness	-0.7278*	-1.1759*
Kurtosis	-1.13	-0.6277
Replicate F	1.463	4.412
Replicate Prob(F)	0.2372	0.0084
Treatment F	264.007	3306.530
Treatment Prob(F)	0.0001	0.0001

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed
Pest Code	ECHCG
Pest Scientific Name	Echinochloa cr>
Pest Name	Common barnyar>
Crop Code	ZEAMX
BBCH Scale	BCOR
Crop Scientific Name	Zea mays
Crop Name	Corn
Crop Variety	31P42
Description	7 DAE
Rating Date	Apr/24/2012
Rating Type	Injury
Rating Unit	%

Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	No Preemergence No Postemergence						0a	0c	
2	No Preemergence Roundup Weathermax Zidua	4.5 85	22 1	fl oz/a oz wt/a	0.77 0.053	lb ae/a lb ai/a	V4 CORNB V4 CORNB	0a	0c
3	No Preemergence Roundup Weathermax Aatrex	4.5 4	22 1	fl oz/a qt/a	0.77 1	lb ae/a lb ai/a	V4 CORNB V4 CORNB	0a	0c
4	No Preemergence Roundup Weathermax Zidua Aatrex	4.5 85 4	22 1 1	fl oz/a oz wt/a qt/a	0.77 0.053 1	lb ae/a lb ai/a lb ai/a	V4 CORNB V4 CORNB V4 CORNB	0a	0c
5	Zidua No Postemergence	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	0a 94a
6	Zidua Roundup Weathermax Zidua	85 4.5 85	2.5 22 1	oz wt/a fl oz/a oz wt/a	0.133 0.77 0.053	lb ai/a lb ae/a lb ai/a	PRE V4 CORNB V4 CORNB	A	0a 96a
7	Zidua Roundup Weathermax Aatrex	85 4.5 4	2.5 22 1	oz wt/a fl oz/a qt/a	0.133 0.77 1	lb ai/a lb ae/a lb ai/a	PRE V4 CORNB V4 CORNB	A	0a 94a
8	Zidua Roundup Weathermax Zidua Aatrex	85 4.5 85 4	2.5 22 1 1	oz wt/a fl oz/a oz wt/a qt/a	0.133 0.77 0.053 1	lb ai/a lb ae/a lb ai/a lb ai/a	PRE V4 CORNB V4 CORNB V4 CORNB	A	0a 95a
9	Aatrex No Postemergence	4	1	qt/a	1	lb ai/a	PRE	A	0a 55b

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed
Pest Code	ECHCG
Pest Scientific Name	Echinochloa cr>
Pest Name	Common barnyar>
Crop Code	ZEAMX
BBCH Scale	BCOR
Crop Scientific Name	Zea mays
Crop Name	Corn
Crop Variety	31P42
Description	7 DAE
Rating Date	Apr/24/2012
Rating Type	Injury
Rating Unit	%

Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
10	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A	0a	54b
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB			
	Zidua	85	1 oz wt/a	0.053	lb ai/a	V4 CORNB			
11	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A	0a	51b
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB			
	Aatrex	4	1 qt/a	1	lb ai/a	V4 CORNB			
12	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A	0a	51b
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB			
	Zidua	85	1 oz wt/a	0.053	lb ai/a	V4 CORNB			
	Aatrex	4	1 qt/a	1	lb ai/a	V4 CORNB			
13	Zidua	85	2.5 oz wt/a	0.133	lb ai/a	PRE	A	0a	95a
	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A		
	No Postemergence								
14	Zidua	85	2.5 oz wt/a	0.133	lb ai/a	PRE	A	0a	95a
	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A		
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB			
	Zidua	85	1 oz wt/a	0.053	lb ai/a	V4 CORNB			
15	Zidua	85	2.5 oz wt/a	0.133	lb ai/a	PRE	A	0a	94a
	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A		
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB			
	Aatrex	4	1 qt/a	1	lb ai/a	V4 CORNB			
16	Zidua	85	2.5 oz wt/a	0.133	lb ai/a	PRE	A	0a	96a
	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A		
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB			
	Zidua	85	1 oz wt/a	0.053	lb ai/a	V4 CORNB			
	Aatrex	4	1 qt/a	1	lb ai/a	V4 CORNB			

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	
Pest Code	ECHCG	
Pest Scientific Name	Echinochloa cr>	
Pest Name	Common barnyar>	
Crop Code	ZEAMX	
BBCH Scale	BCOR	
Crop Scientific Name	Zea mays	
Crop Name	Corn	
Crop Variety	31P42	
Description	7 DAE	14 DAE
Rating Date	Apr/24/2012	May/1/2012
Rating Type	Injury	Control
Rating Unit	%	%
LSD (P=.05)	0.0	4.8
Standard Deviation	0.0	3.3
CV	0.0	5.5
Bartlett's X2	0.0	12.632
P(Bartlett's X2)	.	0.18
Skewness	.	-0.6112*
Kurtosis	.	-1.2545*
Replicate F	0.000	0.250
Replicate Prob(F)	1.0000	0.8612
Treatment F	0.000	583.465
Treatment Prob(F)	1.0000	0.0001

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	
Pest Code	AMASS	
Pest Scientific Name	Amaranthus sp.	
Pest Name	Amaranth	
Crop Name		Corn
Description	14 DAE	14DAE
Rating Date	May/1/2012	May/1/2012
Rating Type	Control	Injury
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	No Preemergence No Postemergence							0d	0a
2	No Preemergence Roundup Weathermax Zidua	4.5 85	22 1	fl oz/a oz wt/a	0.77 0.053	lb ae/a lb ai/a	V4 CORNB V4 CORNB	0d	0a
3	No Preemergence Roundup Weathermax Aatrex	4.5 4	22 1	fl oz/a qt/a	0.77 1	lb ae/a lb ai/a	V4 CORNB V4 CORNB	0d	0a
4	No Preemergence Roundup Weathermax Zidua Aatrex	4.5 85 4	22 1 1	fl oz/a oz wt/a qt/a	0.77 0.053 1	lb ae/a lb ai/a lb ai/a	V4 CORNB V4 CORNB V4 CORNB	0d	0a
5	Zidua No Postemergence	85	2.5	oz wt/a	0.133	lb ai/a	PRE A	95a	0a
6	Zidua Roundup Weathermax Zidua	85 4.5 85	2.5 22 1	oz wt/a fl oz/a oz wt/a	0.133 0.77 0.053	lb ai/a lb ae/a lb ai/a	PRE A V4 CORNB V4 CORNB	95a	0a
7	Zidua Roundup Weathermax Aatrex	85 4.5 4	2.5 22 1	oz wt/a fl oz/a qt/a	0.133 0.77 1	lb ai/a lb ae/a lb ai/a	PRE A V4 CORNB V4 CORNB	98a	0a
8	Zidua Roundup Weathermax Zidua Aatrex	85 4.5 85 4	2.5 22 1 1	oz wt/a fl oz/a oz wt/a qt/a	0.133 0.77 0.053 1	lb ai/a lb ae/a lb ai/a lb ai/a	PRE A V4 CORNB V4 CORNB V4 CORNB	96a	0a
9	Aatrex No Postemergence	4	1	qt/a	1	lb ai/a	PRE A	60c	0a

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	
Pest Code	AMASS	
Pest Scientific Name	Amaranthus sp.	
Pest Name	Amaranth	
Crop Name	Corn	
Description	14 DAE	14DAE
Rating Date	May/1/2012	May/1/2012
Rating Type	Control	Injury
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
10	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A	69b	0a
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB			
	Zidua	85	1 oz wt/a	0.053	lb ai/a	V4 CORNB			
11	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A	61c	0a
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB			
	Aatrex	4	1 qt/a	1	lb ai/a	V4 CORNB			
12	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A	60c	0a
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB			
	Zidua	85	1 oz wt/a	0.053	lb ai/a	V4 CORNB			
	Aatrex	4	1 qt/a	1	lb ai/a	V4 CORNB			
13	Zidua	85	2.5 oz wt/a	0.133	lb ai/a	PRE	A	98a	0a
	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A		
	No Postemergence								
14	Zidua	85	2.5 oz wt/a	0.133	lb ai/a	PRE	A	99a	0a
	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A		
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB			
	Zidua	85	1 oz wt/a	0.053	lb ai/a	V4 CORNB			
15	Zidua	85	2.5 oz wt/a	0.133	lb ai/a	PRE	A	99a	0a
	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A		
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB			
	Aatrex	4	1 qt/a	1	lb ai/a	V4 CORNB			
16	Zidua	85	2.5 oz wt/a	0.133	lb ai/a	PRE	A	99a	0a
	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A		
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB			
	Zidua	85	1 oz wt/a	0.053	lb ai/a	V4 CORNB			
	Aatrex	4	1 qt/a	1	lb ai/a	V4 CORNB			

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	
Pest Code	AMASS	
Pest Scientific Name	Amaranthus sp.	
Pest Name	Amaranth	
Crop Name	Corn	
Description	14 DAE	14DAE
Rating Date	May/1/2012	May/1/2012
Rating Type	Control	Injury
Rating Unit	%	%
LSD (P=.05)	5.5	0.0
Standard Deviation	3.9	0.0
CV	6.02	0.0
Bartlett's X2	13.047	0.0
P(Bartlett's X2)	0.221	.
Skewness	-0.7741*	.
Kurtosis	-1.067	.
Replicate F	1.984	0.000
Replicate Prob(F)	0.1299	1.0000
Treatment F	450.369	0.000
Treatment Prob(F)	0.0001	1.0000

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed				W Weed			
Pest Code	ECHCG				AMASS			
Pest Scientific Name	Echinochloa cr>				Amaranthus sp.			
Pest Name	Common barnyar>				Amaranth			
Description	7 DA POST				7 DA POST			
Rating Date	May/9/2012				May/9/2012			
Rating Type	Control				Control			
Rating Unit	%				%			
Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
1	No Preemergence No Postemergence						0e	0d
2	No Preemergence Roundup Weathermax Zidua	4.5 85	22 1	fl oz/a oz wt/a	0.77 lb ae/a 0.053 lb ai/a	V4 CORNB V4 CORNB	78b	93a
3	No Preemergence Roundup Weathermax Aatrex	4.5 4	22 1	fl oz/a qt/a	0.77 lb ae/a 1 lb ai/a	V4 CORNB V4 CORNB	65c	95a
4	No Preemergence Roundup Weathermax Zidua Aatrex	4.5 85 4	22 1 1	fl oz/a oz wt/a qt/a	0.77 lb ae/a 0.053 lb ai/a 1 lb ai/a	V4 CORNB V4 CORNB V4 CORNB	68bc	95a
5	Zidua No Postemergence	85	2.5	oz wt/a	0.133 lb ai/a	PRE	A 79b	76b
6	Zidua Roundup Weathermax Zidua	85 4.5 85	2.5 22 1	oz wt/a fl oz/a oz wt/a	0.133 lb ai/a 0.77 lb ae/a 0.053 lb ai/a	PRE V4 CORNB V4 CORNB	A 95a	100a
7	Zidua Roundup Weathermax Aatrex	85 4.5 4	2.5 22 1	oz wt/a fl oz/a qt/a	0.133 lb ai/a 0.77 lb ae/a 1 lb ai/a	PRE V4 CORNB V4 CORNB	A 96a	100a
8	Zidua Roundup Weathermax Zidua Aatrex	85 4.5 85 4	2.5 22 1 1	oz wt/a fl oz/a oz wt/a qt/a	0.133 lb ai/a 0.77 lb ae/a 0.053 lb ai/a 1 lb ai/a	PRE V4 CORNB V4 CORNB V4 CORNB	A 96a	100a
9	Aatrex No Postemergence	4	1	qt/a	1 lb ai/a	PRE	A 25d	26c

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	7 DA POST	7 DA POST
Rating Date	May/9/2012	May/9/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt	Treatment	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Rate	Unit	Rate	Unit	Stage	Code	
10	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	76b
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		95a
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
11	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	70bc
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		93a
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		
12	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	70bc
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		95a
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		
13	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	79b
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	78b
	No Postemergence								
14	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	95a
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	100a
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
15	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	93a
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	100a
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		
16	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	94a
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	100a
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	7 DA POST	7 DA POST
Rating Date	May/9/2012	May/9/2012
Rating Type	Control	Control
Rating Unit	%	%
LSD (P=.05)	7.7	7.4
Standard Deviation	5.4	5.2
CV	7.35	6.18
Bartlett's X2	32.995	4.788
P(Bartlett's X2)	0.001*	0.31
Skewness	-1.6202*	-2.1453*
Kurtosis	2.0916*	3.3607*
Replicate F	2.020	1.812
Replicate Prob(F)	0.1246	0.1585
Treatment F	97.117	124.951
Treatment Prob(F)	0.0001	0.0001

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed
Pest Code	ECHCG
Pest Scientific Name	Echinochloa cr>
Pest Name	Common barnyar>
Crop Name	Corn
Description	7 DA POST 14 DA POST
Rating Date	May/9/2012 May/16/2012
Rating Type	Injury Control
Rating Unit	% %

Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	No Preemergence No Postemergence							0a	0e
2	No Preemergence Roundup Weathermax Zidua	4.5 85	22 1	fl oz/a oz wt/a	0.77 0.053	lb ae/a lb ai/a	V4 CORNB V4 CORNB	0a	84b
3	No Preemergence Roundup Weathermax Aatrex	4.5 4	22 1	fl oz/a qt/a	0.77 1	lb ae/a lb ai/a	V4 CORNB V4 CORNB	0a	64c
4	No Preemergence Roundup Weathermax Zidua Aatrex	4.5 85 4	22 1 1	fl oz/a oz wt/a qt/a	0.77 0.053 1	lb ae/a lb ai/a lb ai/a	V4 CORNB V4 CORNB V4 CORNB	0a	78b
5	Zidua No Postemergence	85	2.5	oz wt/a	0.133	lb ai/a	PRE A	0a	78b
6	Zidua Roundup Weathermax Zidua	85 4.5 85	2.5 22 1	oz wt/a fl oz/a oz wt/a	0.133 0.77 0.053	lb ai/a lb ae/a lb ai/a	PRE A V4 CORNB V4 CORNB	0a	94a
7	Zidua Roundup Weathermax Aatrex	85 4.5 4	2.5 22 1	oz wt/a fl oz/a qt/a	0.133 0.77 1	lb ai/a lb ae/a lb ai/a	PRE A V4 CORNB V4 CORNB	0a	91a
8	Zidua Roundup Weathermax Zidua Aatrex	85 4.5 85 4	2.5 22 1 1	oz wt/a fl oz/a oz wt/a qt/a	0.133 0.77 0.053 1	lb ai/a lb ae/a lb ai/a lb ai/a	PRE A V4 CORNB V4 CORNB V4 CORNB	0a	95a
9	Aatrex No Postemergence	4	1	qt/a	1	lb ai/a	PRE A	0a	11d

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed
Pest Code	ECHCG
Pest Scientific Name	Echinochloa cr>
Pest Name	Common barnyar>
Crop Name	Corn
Description	7 DA POST 14 DA POST
Rating Date	May/9/2012 May/16/2012
Rating Type	Injury Control
Rating Unit	% %

Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
10	Aatrex	4	1	qt/a	1	lb ai/a	PRE A	0a	80b
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
11	Aatrex	4	1	qt/a	1	lb ai/a	PRE A	0a	61c
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		
12	Aatrex	4	1	qt/a	1	lb ai/a	PRE A	0a	81b
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		
13	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE A	0a	76b
	Aatrex	4	1	qt/a	1	lb ai/a	PRE A		
	No Postemergence								
14	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE A	0a	95a
	Aatrex	4	1	qt/a	1	lb ai/a	PRE A		
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
15	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE A	0a	93a
	Aatrex	4	1	qt/a	1	lb ai/a	PRE A		
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		
16	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE A	0a	95a
	Aatrex	4	1	qt/a	1	lb ai/a	PRE A		
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	
Pest Code	ECHCG	
Pest Scientific Name	Echinochloa cr>	
Pest Name	Common barnyar>	
Crop Name	Corn	
Description	7 DA POST	14 DA POST
Rating Date	May/9/2012	May/16/2012
Rating Type	Injury	Control
Rating Unit	%	%
LSD (P=.05)	0.0	7.0
Standard Deviation	0.0	4.9
CV	0.0	6.66
Bartlett's X2	0.0	13.131
P(Bartlett's X2)	.	0.285
Skewness	.	-1.7126*
Kurtosis	.	1.8936*
Replicate F	0.000	2.887
Replicate Prob(F)	1.0000	0.0459
Treatment F	0.000	136.767
Treatment Prob(F)	1.0000	0.0001

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	
Pest Code	AMASS	
Pest Scientific Name	Amaranthus sp.	
Pest Name	Amaranth	
Crop Name	Corn	
Description	14 DA POST	14 DA POST
Rating Date	May/16/2012	May/16/2012
Rating Type	Control	Injury
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	No Preemergence No Postemergence							0d	0a
2	No Preemergence Roundup Weathermax Zidua	4.5 85	22 1	fl oz/a oz wt/a	0.77 0.053	lb ae/a lb ai/a	V4 CORNB V4 CORNB	95a	0a
3	No Preemergence Roundup Weathermax Aatrex	4.5 4	22 1	fl oz/a qt/a	0.77 1	lb ae/a lb ai/a	V4 CORNB V4 CORNB	94a	0a
4	No Preemergence Roundup Weathermax Zidua Aatrex	4.5 85 4	22 1 1	fl oz/a oz wt/a qt/a	0.77 0.053 1	lb ae/a lb ai/a lb ai/a	V4 CORNB V4 CORNB V4 CORNB	95a	0a
5	Zidua No Postemergence	85	2.5	oz wt/a	0.133	lb ai/a	PRE A	73b	0a
6	Zidua Roundup Weathermax Zidua	85 4.5 85	2.5 22 1	oz wt/a fl oz/a oz wt/a	0.133 0.77 0.053	lb ai/a lb ae/a lb ai/a	PRE A V4 CORNB V4 CORNB	97a	0a
7	Zidua Roundup Weathermax Aatrex	85 4.5 4	2.5 22 1	oz wt/a fl oz/a qt/a	0.133 0.77 1	lb ai/a lb ae/a lb ai/a	PRE A V4 CORNB V4 CORNB	96a	0a
8	Zidua Roundup Weathermax Zidua Aatrex	85 4.5 85 4	2.5 22 1 1	oz wt/a fl oz/a oz wt/a qt/a	0.133 0.77 0.053 1	lb ai/a lb ae/a lb ai/a lb ai/a	PRE A V4 CORNB V4 CORNB V4 CORNB	100a	0a
9	Aatrex No Postemergence	4	1	qt/a	1	lb ai/a	PRE A	18c	0a

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed									
Pest Code	AMASS									
Pest Scientific Name	Amaranthus sp.									
Pest Name	Amaranth									
Crop Name	Corn									
Description	14 DA POST					14 DA POST				
Rating Date	May/16/2012					May/16/2012				
Rating Type	Control					Injury				
Rating Unit	%					%				
Trt No.	Treatment Name	Form Conc	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
10	Aatrex	4	1	qt/a	1 lb ai/a	PRE	A	94a		0a
	Roundup Weathermax	4.5	22	fl oz/a	0.77 lb ae/a	V4 CORNB				
	Zidua	85	1	oz wt/a	0.053 lb ai/a	V4 CORNB				
11	Aatrex	4	1	qt/a	1 lb ai/a	PRE	A	78b		0a
	Roundup Weathermax	4.5	22	fl oz/a	0.77 lb ae/a	V4 CORNB				
	Aatrex	4	1	qt/a	1 lb ai/a	V4 CORNB				
12	Aatrex	4	1	qt/a	1 lb ai/a	PRE	A	93a		0a
	Roundup Weathermax	4.5	22	fl oz/a	0.77 lb ae/a	V4 CORNB				
	Zidua	85	1	oz wt/a	0.053 lb ai/a	V4 CORNB				
	Aatrex	4	1	qt/a	1 lb ai/a	V4 CORNB				
13	Zidua	85	2.5	oz wt/a	0.133 lb ai/a	PRE	A	74b		0a
	Aatrex	4	1	qt/a	1 lb ai/a	PRE	A			
	No Postemergence									
14	Zidua	85	2.5	oz wt/a	0.133 lb ai/a	PRE	A	99a		0a
	Aatrex	4	1	qt/a	1 lb ai/a	PRE	A			
	Roundup Weathermax	4.5	22	fl oz/a	0.77 lb ae/a	V4 CORNB				
	Zidua	85	1	oz wt/a	0.053 lb ai/a	V4 CORNB				
15	Zidua	85	2.5	oz wt/a	0.133 lb ai/a	PRE	A	96a		0a
	Aatrex	4	1	qt/a	1 lb ai/a	PRE	A			
	Roundup Weathermax	4.5	22	fl oz/a	0.77 lb ae/a	V4 CORNB				
	Aatrex	4	1	qt/a	1 lb ai/a	V4 CORNB				
16	Zidua	85	2.5	oz wt/a	0.133 lb ai/a	PRE	A	98a		0a
	Aatrex	4	1	qt/a	1 lb ai/a	PRE	A			
	Roundup Weathermax	4.5	22	fl oz/a	0.77 lb ae/a	V4 CORNB				
	Zidua	85	1	oz wt/a	0.053 lb ai/a	V4 CORNB				
	Aatrex	4	1	qt/a	1 lb ai/a	V4 CORNB				

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	
Pest Code	AMASS	
Pest Scientific Name	Amaranthus sp.	
Pest Name	Amaranth	
Crop Name	Corn	
Description	14 DA POST	14 DA POST
Rating Date	May/16/2012	May/16/2012
Rating Type	Control	Injury
Rating Unit	%	%
LSD (P=.05)	8.5	0.0
Standard Deviation	5.9	0.0
CV	7.3	0.0
Bartlett's X2	38.996	0.0
P(Bartlett's X2)	0.001*	.
Skewness	-1.9398*	.
Kurtosis	2.4581*	.
Replicate F	1.031	0.000
Replicate Prob(F)	0.3877	1.0000
Treatment F	101.055	0.000
Treatment Prob(F)	0.0001	1.0000

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	28 DA POST	28 DA POST
Rating Date	May/30/2012	May/30/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt	Treatment	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Rate	Unit	Rate	Rate	Unit	Stage	Code
1	No Preemergence No Postemergence								0d
2	No Preemergence Roundup Weathermax Zidua	4.5 85	22 1	fl oz/a oz wt/a	0.77 0.053	lb ae/a lb ai/a	V4 CORNB V4 CORNB		86ab
3	No Preemergence Roundup Weathermax Aatrex	4.5 4	22 1	fl oz/a qt/a	0.77 1	lb ae/a lb ai/a	V4 CORNB V4 CORNB		73c
4	No Preemergence Roundup Weathermax Zidua Aatrex	4.5 85 4	22 1 1	fl oz/a oz wt/a qt/a	0.77 0.053 1	lb ae/a lb ai/a lb ai/a	V4 CORNB V4 CORNB V4 CORNB		85ab
5	Zidua No Postemergence	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	69c
6	Zidua Roundup Weathermax Zidua	85 4.5 85	2.5 22 1	oz wt/a fl oz/a oz wt/a	0.133 0.77 0.053	lb ai/a lb ae/a lb ai/a	PRE V4 CORNB V4 CORNB	A	96a
7	Zidua Roundup Weathermax Aatrex	85 4.5 4	2.5 22 1	oz wt/a fl oz/a qt/a	0.133 0.77 1	lb ai/a lb ae/a lb ai/a	PRE V4 CORNB V4 CORNB	A	91a
8	Zidua Roundup Weathermax Zidua Aatrex	85 4.5 85 4	2.5 22 1 1	oz wt/a fl oz/a oz wt/a qt/a	0.133 0.77 0.053 1	lb ai/a lb ae/a lb ai/a lb ai/a	PRE V4 CORNB V4 CORNB V4 CORNB	A	96a
9	Aatrex No Postemergence	4	1	qt/a	1	lb ai/a	PRE	A	5d

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	28 DA POST	28 DA POST
Rating Date	May/30/2012	May/30/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt	Treatment	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Rate	Unit	Rate	Unit	Stage	Code	
10	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	83ab
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		100a
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
11	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	66c
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		100a
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		
12	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	88ab
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		100a
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		
13	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	76bc
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	81b
	No Postemergence								
14	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	93a
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	100a
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
15	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	92a
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	100a
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		
16	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	95a
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	100a
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	28 DA POST	28 DA POST
Rating Date	May/30/2012	May/30/2012
Rating Type	Control	Control
Rating Unit	%	%
LSD (P=.05)	8.1	8.9
Standard Deviation	5.7	6.2
CV	7.6	7.18
Bartlett's X2	31.175	8.837
P(Bartlett's X2)	0.003*	0.012*
Skewness	-1.8037*	-2.1292*
Kurtosis	2.0547*	3.0082*
Replicate F	1.059	1.992
Replicate Prob(F)	0.3758	0.1287
Treatment F	109.717	98.073
Treatment Prob(F)	0.0001	0.0001

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed	
Pest Code	IPOSS	SIDSP	
Pest Scientific Name	Ipomoea sp.	Sida spinosa	
Pest Name	Morning glory	Prickly sida	
Crop Name			Corn
Description	28 DA POST	28 DA POST	28 DA POST
Rating Date	May/30/2012	May/30/2012	May/30/2012
Rating Type	Control	Control	Injury
Rating Unit	%	%	%

Trt	Treatment	Form	Rate	Other	Other	Growth	Appl			
No.	Name	Conc	Rate	Rate	Rate	Unit	Stage	Code		
1	No Preemergence No Postemergence								0c	0b 0a
2	No Preemergence Roundup Weathermax Zidua	4.5 85	22 1	fl oz/a oz wt/a	0.77 0.053	lb ae/a lb ai/a	V4 CORNB V4 CORNB		84a	88a 0a
3	No Preemergence Roundup Weathermax Aatrex	4.5 4	22 1	fl oz/a qt/a	0.77 1	lb ae/a lb ai/a	V4 CORNB V4 CORNB		99a	97a 0a
4	No Preemergence Roundup Weathermax Zidua Aatrex	4.5 85 4	22 1 1	fl oz/a oz wt/a qt/a	0.77 0.053 1	lb ae/a lb ai/a lb ai/a	V4 CORNB V4 CORNB V4 CORNB		83a	97a 0a
5	Zidua No Postemergence	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	64b	88a 0a
6	Zidua Roundup Weathermax Zidua	85 4.5 85	2.5 22 1	oz wt/a fl oz/a oz wt/a	0.133 0.77 0.053	lb ai/a lb ae/a lb ai/a	PRE V4 CORNB V4 CORNB	A	94a	99a 0a
7	Zidua Roundup Weathermax Aatrex	85 4.5 4	2.5 22 1	oz wt/a fl oz/a qt/a	0.133 0.77 1	lb ai/a lb ae/a lb ai/a	PRE V4 CORNB V4 CORNB	A	92a	98a 0a
8	Zidua Roundup Weathermax Zidua Aatrex	85 4.5 85 4	2.5 22 1 1	oz wt/a fl oz/a oz wt/a qt/a	0.133 0.77 0.053 1	lb ai/a lb ae/a lb ai/a lb ai/a	PRE V4 CORNB V4 CORNB V4 CORNB	A	91a	99a 0a
9	Aatrex No Postemergence	4	1	qt/a	1	lb ai/a	PRE	A	96a	98a 0a

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed	
Pest Code	IPOSS	SIDSP	
Pest Scientific Name	Ipomoea sp.	Sida spinosa	
Pest Name	Morning glory	Prickly sida	
Crop Name			Corn
Description	28 DA POST	28 DA POST	28 DA POST
Rating Date	May/30/2012	May/30/2012	May/30/2012
Rating Type	Control	Control	Injury
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code 1			
10	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A	86a	90a	0a
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB				
	Zidua	85	1 oz wt/a	0.053	lb ai/a	V4 CORNB				
11	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A	90a	85a	0a
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB				
	Aatrex	4	1 qt/a	1	lb ai/a	V4 CORNB				
12	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A	82a	94a	0a
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB				
	Zidua	85	1 oz wt/a	0.053	lb ai/a	V4 CORNB				
	Aatrex	4	1 qt/a	1	lb ai/a	V4 CORNB				
13	Zidua	85	2.5 oz wt/a	0.133	lb ai/a	PRE	A	88a	98a	0a
	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A			
	No Postemergence									
14	Zidua	85	2.5 oz wt/a	0.133	lb ai/a	PRE	A	85a	96a	0a
	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A			
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB				
	Zidua	85	1 oz wt/a	0.053	lb ai/a	V4 CORNB				
15	Zidua	85	2.5 oz wt/a	0.133	lb ai/a	PRE	A	97a	100a	0a
	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A			
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB				
	Aatrex	4	1 qt/a	1	lb ai/a	V4 CORNB				
16	Zidua	85	2.5 oz wt/a	0.133	lb ai/a	PRE	A	89a	100a	0a
	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A			
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB				
	Zidua	85	1 oz wt/a	0.053	lb ai/a	V4 CORNB				
	Aatrex	4	1 qt/a	1	lb ai/a	V4 CORNB				

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed	
Pest Code	IPOSS	SIDSP	
Pest Scientific Name	Ipomoea sp.	Sida spinosa	
Pest Name	Morning glory	Prickly sida	
Crop Name			Corn
Description	28 DA POST	28 DA POST	28 DA POST
Rating Date	May/30/2012	May/30/2012	May/30/2012
Rating Type	Control	Control	Injury
Rating Unit	%	%	%
LSD (P=.05)	14.6	11.1	0.0
Standard Deviation	10.2	7.8	0.0
CV	12.4	8.75	0.0
Bartlett's X2	20.441	33.989	0.0
P(Bartlett's X2)	0.117	0.001*	.
Skewness	-2.4087*	-3.1045*	.
Kurtosis	5.9083*	8.9332*	.
Replicate F	0.595	0.913	0.000
Replicate Prob(F)	0.6213	0.4422	1.0000
Treatment F	21.067	38.626	0.000
Treatment Prob(F)	0.0001	0.0001	1.0000

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	42 DA POST	42 DA POST
Rating Date	Jun/15/2012	Jun/15/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt	Treatment	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Rate	Unit	Rate	Rate	Unit	Stage	Code
1	No Preemergence No Postemergence								0f
2	No Preemergence Roundup Weathermax Zidua	4.5 85	22 1	fl oz/a oz wt/a	0.77 0.053	lb ae/a lb ai/a	V4 CORNB V4 CORNB		78bc
3	No Preemergence Roundup Weathermax Aatrex	4.5 4	22 1	fl oz/a qt/a	0.77 1	lb ae/a lb ai/a	V4 CORNB V4 CORNB		48e
4	No Preemergence Roundup Weathermax Zidua Aatrex	4.5 85 4	22 1 1	fl oz/a oz wt/a qt/a	0.77 0.053 1	lb ae/a lb ai/a lb ai/a	V4 CORNB V4 CORNB V4 CORNB		79abc
5	Zidua No Postemergence	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	63d
6	Zidua Roundup Weathermax Zidua	85 4.5 85	2.5 22 1	oz wt/a fl oz/a oz wt/a	0.133 0.77 0.053	lb ai/a lb ae/a lb ai/a	PRE V4 CORNB V4 CORNB	A	95a
7	Zidua Roundup Weathermax Aatrex	85 4.5 4	2.5 22 1	oz wt/a fl oz/a qt/a	0.133 0.77 1	lb ai/a lb ae/a lb ai/a	PRE V4 CORNB V4 CORNB	A	90ab
8	Zidua Roundup Weathermax Zidua Aatrex	85 4.5 85 4	2.5 22 1 1	oz wt/a fl oz/a oz wt/a qt/a	0.133 0.77 0.053 1	lb ai/a lb ae/a lb ai/a lb ai/a	PRE V4 CORNB V4 CORNB V4 CORNB	A	96a
9	Aatrex No Postemergence	4	1	qt/a	1	lb ai/a	PRE	A	6f

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	42 DA POST	42 DA POST
Rating Date	Jun/15/2012	Jun/15/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt	Treatment	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Rate	Unit	Rate	Unit	Stage	Code	
10	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	80abc
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		100a
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
11	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	51e
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		99a
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		
12	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	81abc
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		100a
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		
13	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	73cd
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	80b
	No Postemergence								
14	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	95ab
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	100a
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
15	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	91ab
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	100a
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		
16	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	94ab
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	100a
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	42 DA POST	42 DA POST
Rating Date	Jun/15/2012	Jun/15/2012
Rating Type	Control	Control
Rating Unit	%	%
LSD (P=.05)	10.8	7.5
Standard Deviation	7.6	5.3
CV	10.86	5.85
Bartlett's X2	42.802	20.499
P(Bartlett's X2)	0.001*	0.002*
Skewness	-1.2963*	-3.1065*
Kurtosis	0.5756	8.8873*
Replicate F	0.497	2.703
Replicate Prob(F)	0.6863	0.0566
Treatment F	62.799	90.091
Treatment Prob(F)	0.0001	0.0001

School of Plant, Environmental, and Soil Sciences

Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed	
Pest Code	IPOSS	SIDSP	
Pest Scientific Name	Ipomoea sp.	Sida spinosa	
Pest Name	Morning glory	Prickly sida	
Crop Name			Corn
Description	42 DA POST	42 DA POST	42 DA POST
Rating Date	Jun/15/2012	Jun/15/2012	Jun/15/2012
Rating Type	Control	Control	Injury
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	No Preemergence No Postemergence							0c	0b	0a
2	No Preemergence Roundup Weathermax Zidua	4.5 85	22 1	fl oz/a oz wt/a	0.77 0.053	lb ae/a lb ai/a	V4 CORNB V4 CORNB	79ab	78a	0a
3	No Preemergence Roundup Weathermax Aatrex	4.5 4	22 1	fl oz/a qt/a	0.77 1	lb ae/a lb ai/a	V4 CORNB V4 CORNB	86ab	94a	0a
4	No Preemergence Roundup Weathermax Zidua Aatrex	4.5 85 4	22 1 1	fl oz/a oz wt/a qt/a	0.77 0.053 1	lb ae/a lb ai/a lb ai/a	V4 CORNB V4 CORNB V4 CORNB	76ab	93a	0a
5	Zidua No Postemergence	85	2.5	oz wt/a	0.133	lb ai/a	PRE A	66b	79a	0a
6	Zidua Roundup Weathermax Zidua	85 4.5 85	2.5 22 1	oz wt/a fl oz/a oz wt/a	0.133 0.77 0.053	lb ai/a lb ae/a lb ai/a	PRE A V4 CORNB V4 CORNB	80ab	95a	0a
7	Zidua Roundup Weathermax Aatrex	85 4.5 4	2.5 22 1	oz wt/a fl oz/a qt/a	0.133 0.77 1	lb ai/a lb ae/a lb ai/a	PRE A V4 CORNB V4 CORNB	83ab	98a	0a
8	Zidua Roundup Weathermax Zidua Aatrex	85 4.5 85 4	2.5 22 1 1	oz wt/a fl oz/a oz wt/a qt/a	0.133 0.77 0.053 1	lb ai/a lb ae/a lb ai/a lb ai/a	PRE A V4 CORNB V4 CORNB V4 CORNB	86ab	94a	0a
9	Aatrex No Postemergence	4	1	qt/a	1	lb ai/a	PRE A	95a	95a	0a

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed		
Pest Code	I POSS		
Pest Scientific Name	Ipomoea sp.		
Pest Name	Morning glory		
Crop Name	Corn		
Description	42 DA POST	42 DA POST	42 DA POST
Rating Date	Jun/15/2012	Jun/15/2012	Jun/15/2012
Rating Type	Control	Control	Injury
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
10	Aatrex	4	1	qt/a	1	lb ai/a	PRE A	69ab	85a	0a
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB			
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB			
11	Aatrex	4	1	qt/a	1	lb ai/a	PRE A	75ab	78a	0a
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB			
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB			
12	Aatrex	4	1	qt/a	1	lb ai/a	PRE A	75ab	91a	0a
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB			
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB			
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB			
13	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE A	81ab	93a	0a
	Aatrex	4	1	qt/a	1	lb ai/a	PRE A			
	No Postemergence									
14	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE A	79ab	100a	0a
	Aatrex	4	1	qt/a	1	lb ai/a	PRE A			
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB			
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB			
15	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE A	90ab	94a	0a
	Aatrex	4	1	qt/a	1	lb ai/a	PRE A			
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB			
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB			
16	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE A	84ab	99a	0a
	Aatrex	4	1	qt/a	1	lb ai/a	PRE A			
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB			
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB			
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB			

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed	
Pest Code	IPOSS	SIDSP	
Pest Scientific Name	Ipomoea sp.	Sida spinosa	
Pest Name	Morning glory	Prickly sida	
Crop Name			Corn
Description	42 DA POST	42 DA POST	42 DA POST
Rating Date	Jun/15/2012	Jun/15/2012	Jun/15/2012
Rating Type	Control	Control	Injury
Rating Unit	%	%	%
LSD (P=.05)	15.3	14.1	0.0
Standard Deviation	10.7	9.9	0.0
CV	14.27	11.59	0.0
Bartlett's X2	7.319	16.724	0.0
P(Bartlett's X2)	0.885	0.16	.
Skewness	-2.1541*	-2.6277*	.
Kurtosis	5.4578*	6.7871*	.
Replicate F	0.311	0.023	0.000
Replicate Prob(F)	0.8175	0.9952	1.0000
Treatment F	15.836	23.341	0.000
Treatment Prob(F)	0.0001	0.0001	1.0000

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type								W Weed	W Weed
Pest Code								ECHCG	AMASS
Pest Scientific Name								Echinochloa cr>	Amaranthus sp.
Pest Name								Common barnyar>	Amaranth
Description								At Harvest	At Harvest
Rating Date								Aug/26/2012	Aug/26/2012
Rating Type								Control	Control
Rating Unit								%	%
Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	No Preemergence No Postemergence							0e	0b
2	No Preemergence Roundup Weathermax Zidua	4.5 85	22 1	fl oz/a oz wt/a	0.77 0.053	lb ae/a lb ai/a	V4 CORNB V4 CORNB	73ab	89a
3	No Preemergence Roundup Weathermax Aatrex	4.5 4	22 1	fl oz/a qt/a	0.77 1	lb ae/a lb ai/a	V4 CORNB V4 CORNB	58cd	89a
4	No Preemergence Roundup Weathermax Zidua Aatrex	4.5 85 4	22 1 1	fl oz/a oz wt/a qt/a	0.77 0.053 1	lb ae/a lb ai/a lb ai/a	V4 CORNB V4 CORNB V4 CORNB	75ab	89a
5	Zidua No Postemergence	85	2.5	oz wt/a	0.133	lb ai/a	PRE A	80ab	91a
6	Zidua Roundup Weathermax Zidua	85 4.5 85	2.5 22 1	oz wt/a fl oz/a oz wt/a	0.133 0.77 0.053	lb ai/a lb ae/a lb ai/a	PRE A V4 CORNB V4 CORNB	89ab	88a
7	Zidua Roundup Weathermax Aatrex	85 4.5 4	2.5 22 1	oz wt/a fl oz/a qt/a	0.133 0.77 1	lb ai/a lb ae/a lb ai/a	PRE A V4 CORNB V4 CORNB	83ab	86a
8	Zidua Roundup Weathermax Zidua Aatrex	85 4.5 85 4	2.5 22 1 1	oz wt/a fl oz/a oz wt/a qt/a	0.133 0.77 0.053 1	lb ai/a lb ae/a lb ai/a lb ai/a	PRE A V4 CORNB V4 CORNB V4 CORNB	89ab	91a
9	Aatrex No Postemergence	4	1	qt/a	1	lb ai/a	PRE A	69bc	94a

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	At Harvest	At Harvest
Rating Date	Aug/26/2012	Aug/26/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt	Treatment	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Rate	Unit	Rate	Unit	Stage	Code	
10	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	75ab
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		88a
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
11	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	54d
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		85a
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		
12	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	80ab
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		90a
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		
13	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	78ab
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	84a
	No Postemergence								
14	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	88ab
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	91a
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
15	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	84ab
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	93a
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		
16	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	91a
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	90a
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB		
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB		

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	At Harvest	At Harvest
Rating Date	Aug/26/2012	Aug/26/2012
Rating Type	Control	Control
Rating Unit	%	%
LSD (P=.05)	12.2	6.3
Standard Deviation	8.5	4.4
CV	11.74	5.29
Bartlett's X2	24.751	16.79
P(Bartlett's X2)	0.037*	0.209
Skewness	-2.0677*	-3.4192*
Kurtosis	4.1244*	10.6976*
Replicate F	3.730	2.853
Replicate Prob(F)	0.0177	0.0477
Treatment F	26.863	103.279
Treatment Prob(F)	0.0001	0.0001

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed	W Weed
Pest Code	IPOSS	SIDSP	
Pest Scientific Name	Ipomoea sp.	Sida spinosa	Phyllanthus ur>
Pest Name	Morning glory	Prickly sida	Chamber bitter
Description	At Harvest	At Harvest	At Harvest
Rating Date	Aug/26/2012	Aug/26/2012	Aug/26/2012
Rating Type	Control	Control	Control
Rating Unit	%	%	%

Trt	Treatment	Form	Rate	Other	Other	Growth	Appl			
No.	Name	Conc	Rate	Unit	Rate	Rate	Unit	Stage	Code	
1	No Preemergence No Postemergence								0b	0b
2	No Preemergence Roundup Weathermax4.5 Zidua	85	22	1	fl oz/a oz wt/a	0.77 0.053	lb ae/a lb ai/a	V4 CORNB V4 CORNB	86a	79a
3	No Preemergence Roundup Weathermax4.5 Aatrex	85	22	1	fl oz/a qt/a	0.77 1	lb ae/a lb ai/a	V4 CORNB V4 CORNB	81a	90a
4	No Preemergence Roundup Weathermax4.5 Zidua Aatrex	85	22	1	fl oz/a oz wt/a qt/a	0.77 0.053 1	lb ae/a lb ai/a lb ai/a	V4 CORNB V4 CORNB V4 CORNB	76a	85a
5	Zidua No Postemergence	85	2.5		oz wt/a	0.133	lb ai/a	PRE	A	70a
6	Zidua Roundup Weathermax4.5 Zidua	85	2.5		oz wt/a	0.133	lb ai/a	PRE	A	74a
7	Zidua Roundup Weathermax4.5 Aatrex	85	2.5		fl oz/a	0.77	lb ae/a	V4 CORNB	79a	91a
8	Zidua Roundup Weathermax4.5 Zidua Aatrex	85	2.5		oz wt/a	0.133	lb ai/a	PRE	A	69a
9	Aatrex No Postemergence	4	1		qt/a	1	lb ai/a	PRE	A	85a

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed	W Weed
Pest Code	IPOSS	SIDSP	
Pest Scientific Name	Ipomoea sp.	Sida spinosa	Phyllanthus ur>
Pest Name	Morning glory	Prickly sida	Chamber bitter
Description	At Harvest	At Harvest	At Harvest
Rating Date	Aug/26/2012	Aug/26/2012	Aug/26/2012
Rating Type	Control	Control	Control
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
10	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A	79a	75a	84a
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB				
	Zidua	85	1 oz wt/a	0.053	lb ai/a	V4 CORNB				
11	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A	83a	74a	78a
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB				
	Aatrex	4	1 qt/a	1	lb ai/a	V4 CORNB				
12	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A	69a	81a	85a
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB				
	Zidua	85	1 oz wt/a	0.053	lb ai/a	V4 CORNB				
	Aatrex	4	1 qt/a	1	lb ai/a	V4 CORNB				
13	Zidua	85	2.5 oz wt/a	0.133	lb ai/a	PRE	A	80a	89a	80a
	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A			
	No Postemergence									
14	Zidua	85	2.5 oz wt/a	0.133	lb ai/a	PRE	A	70a	94a	88a
	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A			
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB				
	Zidua	85	1 oz wt/a	0.053	lb ai/a	V4 CORNB				
15	Zidua	85	2.5 oz wt/a	0.133	lb ai/a	PRE	A	85a	88a	83a
	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A			
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB				
	Aatrex	4	1 qt/a	1	lb ai/a	V4 CORNB				
16	Zidua	85	2.5 oz wt/a	0.133	lb ai/a	PRE	A	76a	93a	89a
	Aatrex	4	1 qt/a	1	lb ai/a	PRE	A			
	Roundup Weathermax	4.5	22 fl oz/a	0.77	lb ae/a	V4 CORNB				
	Zidua	85	1 oz wt/a	0.053	lb ai/a	V4 CORNB				
	Aatrex	4	1 qt/a	1	lb ai/a	V4 CORNB				

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed	W Weed
Pest Code	IPOSS	SIDSP	
Pest Scientific Name	Ipomoea sp.	Sida spinosa	Phyllanthus ur>
Pest Name	Morning glory	Prickly sida	Chamber bitter
Description	At Harvest	At Harvest	At Harvest
Rating Date	Aug/26/2012	Aug/26/2012	Aug/26/2012
Rating Type	Control	Control	Control
Rating Unit	%	%	%
LSD (P=.05)	21.0	11.7	10.4
Standard Deviation	14.7	8.2	7.3
CV	20.26	10.17	9.26
Bartlett's X2	23.812	23.264	22.964
P(Bartlett's X2)	0.048*	0.056	0.061
Skewness	-1.9603*	-2.7431*	-3.0691*
Kurtosis	3.8321*	7.3214*	8.8716*
Replicate F	0.946	2.625	1.253
Replicate Prob(F)	0.4264	0.0619	0.3018
Treatment F	7.571	29.869	34.210
Treatment Prob(F)	0.0001	0.0001	0.0001

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Crop Name Description Rating Date Rating Type Rating Unit								Corn At Harvest Aug/26/2012 Injury %	Corn Plant Height May/16/2012 Average Inches	Corn Test Weight Aug/27/2012 lbs/bu	
Trt	Treatment	Form	Rate	Other	Other	Growth	Appl				
No.	Name	Conc	Rate	Unit	Rate	Rate	Unit	Stage	Code		
1	No Preemergence No Postemergence								0a	27bc	51.6a
2	No Preemergence Roundup Weathermax Zidua	4.5 85	22 1	fl oz/a oz wt/a	0.77 0.053	lb ae/a lb ai/a		V4 CORNB V4 CORNB	0a	28bc	54.0a
3	No Preemergence Roundup Weathermax Aatrex	4.5 4	22 1	fl oz/a qt/a	0.77 1	lb ae/a lb ai/a		V4 CORNB V4 CORNB	0a	26c	53.1a
4	No Preemergence Roundup Weathermax Zidua Aatrex	4.5 85 4	22 1 1	fl oz/a oz wt/a qt/a	0.77 0.053 1	lb ae/a lb ai/a lb ai/a		V4 CORNB V4 CORNB V4 CORNB	0a	29abc	52.0a
5	Zidua No Postemergence	85	2.5	oz wt/a	0.133	lb ai/a		PRE A	0a	31abc	57.0a
6	Zidua Roundup Weathermax Zidua	85 4.5 85	2.5 22 1	oz wt/a fl oz/a oz wt/a	0.133 0.77 0.053	lb ai/a lb ae/a lb ai/a		PRE A V4 CORNB V4 CORNB	0a	35a	56.3a
7	Zidua Roundup Weathermax Aatrex	85 4.5 4	2.5 22 1	oz wt/a fl oz/a qt/a	0.133 0.77 1	lb ai/a lb ae/a lb ai/a		PRE A V4 CORNB V4 CORNB	0a	30abc	52.0a
8	Zidua Roundup Weathermax Zidua Aatrex	85 4.5 85 4	2.5 22 1 1	oz wt/a fl oz/a oz wt/a qt/a	0.133 0.77 0.053 1	lb ai/a lb ae/a lb ai/a lb ai/a		PRE A V4 CORNB V4 CORNB V4 CORNB	0a	30abc	52.9a
9	Aatrex No Postemergence	4	1	qt/a	1	lb ai/a		PRE A	0a	31abc	52.0a

School of Plant, Environmental, and Soil Sciences

Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Crop Name										Corn	Corn	Corn
Description										At Harvest	Plant Height	Test Weight
Rating Date										Aug/26/2012	May/16/2012	Aug/27/2012
Rating Type										Injury	Average	
Rating Unit										%	Inches	lbs/bu
Trt No.	Treatment Name	Form Conc	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
10	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	0a	31abc	52.7a	
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB					
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB					
11	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	0a	30abc	51.5a	
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB					
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB					
12	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A	0a	31abc	51.6a	
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB					
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB					
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB					
13	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	0a	33ab	54.1a	
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A				
	No Postemergence											
14	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	0a	32abc	55.9a	
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A				
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB					
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB					
15	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	0a	30abc	51.8a	
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A				
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB					
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB					
16	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE	A	0a	31abc	53.0a	
	Aatrex	4	1	qt/a	1	lb ai/a	PRE	A				
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB					
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB					
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB					

School of Plant, Environmental, and Soil Sciences

Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Crop Name	Corn	Corn	Corn
Description	At Harvest	Plant Height	Test Weight
Rating Date	Aug/26/2012	May/16/2012	Aug/27/2012
Rating Type	Injury	Average	
Rating Unit	%	Inches	lbs/bu
LSD (P=.05)	0.0	4.0	6.31
Standard Deviation	0.0	2.8	4.41
CV	0.0	9.25	8.29
Bartlett's X2	0.0	25.837	21.265
P(Bartlett's X2)	.	0.04*	0.129
Skewness	.	-0.2672	-0.9373*
Kurtosis	.	-0.4738	-0.1771
Replicate F	0.000	3.159	1.714
Replicate Prob(F)	1.0000	0.0337	0.1780
Treatment F	0.000	2.670	0.645
Treatment Prob(F)	1.0000	0.0056	0.8211

School of Plant, Environmental, and Soil Sciences

Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Crop Name Description Rating Date Rating Type Rating Unit								Corn Moisture Aug/27/2012 %	Corn Plot Weight Aug/27/2012 lbs	Corn Yield Aug/27/2012 YIELD BU
Trt No.	Treatment Name	Form Conc	Rate Unit	Other Rate	Other Rate	Growth Unit Stage	Appl Code			
1	No Preemergence No Postemergence							17.1a	19.2c	97.1c
2	No Preemergence Roundup Weathermax Zidua	4.5 85	22 1	fl oz/a oz wt/a	0.77 0.053	lb ae/a lb ai/a	V4 CORNB V4 CORNB	17.1a	35.8a	180.8a
3	No Preemergence Roundup Weathermax Aatrex	4.5 4	22 1	fl oz/a qt/a	0.77 1	lb ae/a lb ai/a	V4 CORNB V4 CORNB	16.9a	34.8a	176.6a
4	No Preemergence Roundup Weathermax Zidua Aatrex	4.5 85 4	22 1 1	fl oz/a oz wt/a qt/a	0.77 0.053 1	lb ae/a lb ai/a lb ai/a	V4 CORNB V4 CORNB V4 CORNB	17.4a	35.5a	179.2a
5	Zidua No Postemergence	85	2.5	oz wt/a	0.133	lb ai/a	PRE A	17.2a	39.2a	198.0a
6	Zidua Roundup Weathermax Zidua	85 4.5 85	2.5 22 1	oz wt/a fl oz/a oz wt/a	0.133 0.77 0.053	lb ai/a lb ae/a lb ai/a	PRE A V4 CORNB V4 CORNB	16.6a	37.7a	192.1a
7	Zidua Roundup Weathermax Aatrex	85 4.5 4	2.5 22 1	oz wt/a fl oz/a qt/a	0.133 0.77 1	lb ai/a lb ae/a lb ai/a	PRE A V4 CORNB V4 CORNB	16.9a	36.3a	183.9a
8	Zidua Roundup Weathermax Zidua Aatrex	85 4.5 85 4	2.5 22 1 1	oz wt/a fl oz/a oz wt/a qt/a	0.133 0.77 0.053 1	lb ai/a lb ae/a lb ai/a lb ai/a	PRE A V4 CORNB V4 CORNB V4 CORNB	17.0a	35.1a	177.6a
9	Aatrex No Postemergence	4	1	qt/a	1	lb ai/a	PRE A	16.9a	24.3b	123.4b

School of Plant, Environmental, and Soil Sciences

Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Crop Name										Corn	Corn	Corn
Description										Moisture	Plot Weight	Yield
Rating Date										Aug/27/2012	Aug/27/2012	Aug/27/2012
Rating Type												YIELD
Rating Unit										%	lbs	BU
Trt No.	Treatment Name	Form	Rate	Other Rate	Other Rate	Growth Stage	Appl Code					
10	Aatrex	4	1	qt/a	1	lb ai/a	PRE A	18.0a	36.1a	180.5a		
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB					
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB					
11	Aatrex	4	1	qt/a	1	lb ai/a	PRE A	16.9a	34.3a	174.0a		
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB					
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB					
12	Aatrex	4	1	qt/a	1	lb ai/a	PRE A	17.1a	35.6a	180.2a		
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB					
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB					
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB					
13	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE A	17.0a	35.2a	178.0a		
	Aatrex	4	1	qt/a	1	lb ai/a	PRE A					
	No Postemergence											
14	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE A	16.9a	32.6a	165.0a		
	Aatrex	4	1	qt/a	1	lb ai/a	PRE A					
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB					
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB					
15	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE A	17.1a	35.2a	178.2a		
	Aatrex	4	1	qt/a	1	lb ai/a	PRE A					
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB					
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB					
16	Zidua	85	2.5	oz wt/a	0.133	lb ai/a	PRE A	16.9a	36.2a	183.6a		
	Aatrex	4	1	qt/a	1	lb ai/a	PRE A					
	Roundup Weathermax	4.5	22	fl oz/a	0.77	lb ae/a	V4 CORNB					
	Zidua	85	1	oz wt/a	0.053	lb ai/a	V4 CORNB					
	Aatrex	4	1	qt/a	1	lb ai/a	V4 CORNB					

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Evaluation of Split Applications of Zidua in Corn

Trial ID: 12CRN01MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Marshall Hardwick

Crop Name	Corn	Corn	Corn
Description	Moisture	Plot Weight	Yield
Rating Date	Aug/27/2012	Aug/27/2012	Aug/27/2012
Rating Type			YIELD
Rating Unit	%	lbs	BU
LSD (P=.05)	1.23	4.79	24.40
Standard Deviation	0.86	3.35	17.07
CV	5.06	9.88	9.94
Bartlett's X2	70.179	33.591	31.086
P(Bartlett's X2)	0.001*	0.004*	0.009*
Skewness	5.0367*	-1.6947*	-1.6903*
Kurtosis	33.1593*	2.5897*	2.6075*
Replicate F	1.142	0.128	0.109
Replicate Prob(F)	0.3428	0.9429	0.9545
Treatment F	0.507	9.066	8.938
Treatment Prob(F)	0.9233	0.0001	0.0001

Zidua Programs in Corn
LSU AgCenter
School of Plant, Environmental, and Soil Sciences

Experiment number : 12CRN02MH
Location..... : Ben Hur Research Farm
Experimental design : Randomized Complete Block
Number of reps : 4
Plot size : 6.33' x 25'
Row width/# per plot : 38"/2
Soil type..... : clay loam
OM (%)..... : 1.9
pH : 6.3
Planting date : 4-10-12
Harvest date : 8-26-12
Crop/Variety : Corn/Pioneer 31P42
Uniform std. treatment..... : N/A

Application type	PRE A	POST B
Date applied (mm-dd-yy)	4-11-12	5-2-12
Time (hh:mm-hh:mm)	10:45-11:15am	9:45-10:00am
Incorporation equipment.....	N/A	N/A
Incorporation depth.....	N/A	N/A
Air/Soil temperature (F)	76/68	79/74
Wind (mph/direction)	5-6/NW	7-8/SE
Relative humidity (%)	55	72
Soil/Leaf surface moist.....	dry/N/A	dry/dry
Crop stage/height.....	N/A	V4-V5/10-15"
Sprayer type/mph.....	CO ₂ bkpk/3.0	CO ₂ bkpk/3.0
Nozzle type/size.....	FF/TTI11002	FF/TTI11002
Boom ht/#noz/spacing (in)	15"/4/18"	15"/4/18"
GPA/psi (at nozzle)	15/28	15/28
Applied by	Hardwick	Bauerle

Weed species	population per ft ² /height/# leaves
ECHCG	N/A
AMASS	N/A

Rainfall (in.)	
0-24 hr/1-3 days.....	0.83/0.00
4-7 days/2nd week.....	1.22/0.26
3rd week/4th week.....	2.71/0.47

Comments:

School of Plant, Environmental, and Soil Sciences

Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	7 DAE	7 DAE
Rating Date	Apr/24/2012	Apr/24/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	Nontreated									0b	0b
2	Zidua	85	DF	2.5	oz wt/a	0.133	lb ai/a	PRE	A	100a	100a
3	Zidua Sharpen	85 2.85	DF L	2 2	oz wt/a fl oz/a	0.106 0.0445	lb ai/a lb ai/a	PRE PRE	A A	100a	100a
4	Zidua Verdict	85 5.57	DF L	2 10	oz wt/a fl oz/a	0.106 0.435	lb ai/a lb ai/a	PRE PRE	A A	100a	100a
5	Zidua Aatrex	85 4	DF L	2 1.5	oz wt/a qt/a	0.106 1.5	lb ai/a lb ai/a	PRE PRE	A A	100a	100a
6	Zidua Aatrex Roundup PowerMax	85 4 4.5	DF L L	2 1.5 22	oz wt/a qt/a fl oz/a	0.106 1.5 0.77	lb ai/a lb ai/a lb ae/a	V4 CORN B V4 CORN B V4 CORN B		0b	0b
7	Bicep II Magnum	5.5	L	2.1	qt/a	2.9	lb ai/a	PRE	A	100a	100a
8	Lexar	3.75	L	3	qt/a	2.8	lb ai/a	PRE	A	100a	100a
9	Halex GT Aatrex	4.38 4	L L	3.6 1	pt/a qt/a	1.97 1	lb ai/a lb ai/a	V4 CORN B V4 CORN B		0b	0b
10	Roundup PowerMax Aatrex	4.5 4	L L	22 1.5	fl oz/a qt/a	0.77 1.5	lb ae/a lb ai/a	V4 CORN B V4 CORN B		0b	0b

School of Plant, Environmental, and Soil Sciences

Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	7 DAE	7 DAE
Rating Date	Apr/24/2012	Apr/24/2012
Rating Type	Control	Control
Rating Unit	%	%
LSD (P=.05)	0.0	0.0
Standard Deviation	0.0	0.0
CV	0.0	0.0
Bartlett's X2	0.0	0.0
P(Bartlett's X2)	.	.
Skewness	-0.4243	-0.4243
Kurtosis	-1.9186*	-1.9186*
Replicate F	0.000	0.000
Replicate Prob(F)	1.0000	1.0000
Treatment F	0.000	0.000
Treatment Prob(F)	1.0000	1.0000

School of Plant, Environmental, and Soil Sciences

Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed
Pest Code	ECHCG
Pest Scientific Name	Echinochloa cr>
Pest Name	Common barnyar>
Crop Code	ZEAMX
BBCH Scale	BCOR
Crop Scientific Name	Zea mays
Crop Name	Corn
Crop Variety	31P42
Description	7 DAE
Rating Date	Apr/24/2012
Rating Type	Injury
Rating Unit	%

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Other Rate	Other Rate	Growth Unit	Stage	Appl Code	
1	Nontreated									0a	0c
2	Zidua	85	DF	2.5	oz wt/a	0.133	lb ai/a	PRE	A	0a	96b
3	Zidua Sharpen	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	0a	98b
		2.85	L	2	fl oz/a	0.0445	lb ai/a	PRE	A		
4	Zidua Verdict	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	0a	100a
		5.57	L	10	fl oz/a	0.435	lb ai/a	PRE	A		
5	Zidua Aatrex	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	0a	96b
		4	L	1.5	qt/a	1.5	lb ai/a	PRE	A		
6	Zidua Aatrex RoundupPowerMax	85	DF	2	oz wt/a	0.106	lb ai/a	V4 CORNB		0a	0c
		4	L	1.5	qt/a	1.5	lb ai/a	V4 CORNB			
		4.5	L	22	fl oz/a	0.77	lb ae/a	V4 CORNB			
7	Bicep II Magnum	5.5	L	2.1	qt/a	2.9	lb ai/a	PRE	A	0a	95b
8	Lexar	3.75	L	3	qt/a	2.8	lb ai/a	PRE	A	0a	100a
9	Halex GT Aatrex	4.38	L	3.6	pt/a	1.97	lb ai/a	V4 CORNB		0a	0c
		4	L	1	qt/a	1	lb ai/a	V4 CORNB			
10	RoundupPowerMax Aatrex	4.5	L	22	fl oz/a	0.77	lb ae/a	V4 CORNB		0a	0c
		4	L	1.5	qt/a	1.5	lb ai/a	V4 CORNB			

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Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	
Pest Code	ECHCG	
Pest Scientific Name	Echinochloa cr>	
Pest Name	Common barnyar>	
Crop Code	ZEAMX	
BBCH Scale	BCOR	
Crop Scientific Name	Zea mays	
Crop Name	Corn	
Crop Variety	31P42	
Description	7 DAE	14 DAE
Rating Date	Apr/24/2012	May/1/2012
Rating Type	Injury	Control
Rating Unit	%	%

LSD (P=.05)	0.0	1.9
Standard Deviation	0.0	1.3
CV	0.0	2.25
Bartlett's X2	0.0	0.384
P(Bartlett's X2)	.	0.825
Skewness	.	-0.4192
Kurtosis	.	-1.9155*
Replicate F	0.000	1.750
Replicate Prob(F)	1.0000	0.1806
Treatment F	0.000	5866.453
Treatment Prob(F)	1.0000	0.0001

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Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	
Pest Code	AMASS	
Pest Scientific Name	Amaranthus sp.	
Pest Name	Amaranth	
Crop Name		Corn
Description	14 DAE	14 DAE
Rating Date	May/1/2012	May/1/2012
Rating Type	Control	Injury
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Unit	Other Rate	Other Rate	Unit	Growth Stage	Appl Code		
1	Nontreated									0b	0a	
2	Zidua	85	DF	2.5	oz wt/a	0.133	lb ai/a		PRE	A	99a	0a
3	Zidua Sharpen	85 2.85	DF L	2 2	oz wt/a fl oz/a	0.106 0.0445	lb ai/a lb ai/a		PRE PRE	A A	100a	0a
4	Zidua Verdict	85 5.57	DF L	2 10	oz wt/a fl oz/a	0.106 0.435	lb ai/a lb ai/a		PRE PRE	A A	100a	0a
5	Zidua Aatrex	85 4	DF L	2 1.5	oz wt/a qt/a	0.106 1.5	lb ai/a lb ai/a		PRE PRE	A A	99a	0a
6	Zidua Aatrex RoundupPowerMax	85 4 4.5	DF L L	2 1.5 22	oz wt/a qt/a fl oz/a	0.106 1.5 0.77	lb ai/a lb ai/a lb ae/a		V4 CORNB V4 CORNB V4 CORNB		0b	0a
7	Bicep II Magnum	5.5	L	2.1	qt/a	2.9	lb ai/a		PRE	A	100a	0a
8	Lexar	3.75	L	3	qt/a	2.8	lb ai/a		PRE	A	100a	0a
9	Halex GT Aatrex	4.38 4	L L	3.6 1	pt/a qt/a	1.97 1	lb ai/a lb ai/a		V4 CORNB V4 CORNB		0b	0a
10	RoundupPowerMax Aatrex	4.5 4	L L	22 1.5	fl oz/a qt/a	0.77 1.5	lb ae/a lb ai/a		V4 CORNB V4 CORNB		0b	0a

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Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	
Pest Code	AMASS	
Pest Scientific Name	Amaranthus sp.	
Pest Name	Amaranth	
Crop Name	Corn	
Crop Variety		
Description	14 DAE	14 DAE
Rating Date	May/1/2012	May/1/2012
Rating Type	Control	Injury
Rating Unit	%	%
LSD (P=.05)	1.6	0.0
Standard Deviation	1.1	0.0
CV	1.84	0.0
Bartlett's X2	0.007	0.0
P(Bartlett's X2)	0.933	.
Skewness	-0.4228	.
Kurtosis	-1.9178*	.
Replicate F	0.847	0.000
Replicate Prob(F)	0.4803	1.0000
Treatment F	8734.406	0.000
Treatment Prob(F)	0.0001	1.0000

School of Plant, Environmental, and Soil Sciences

Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	7 DA POST	7 DA POST
Rating Date	May/9/2012	May/9/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Type	Rate	Unit	Rate	Rate	Unit	Stage	Code
1	Nontreated									0c
2	Zidua	85	DF	2.5	oz wt/a	0.133	lb ai/a	PRE	A	91a
3	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	92a
	Sharpen	2.85	L	2	fl oz/a	0.0445	lb ai/a	PRE	A	100a
4	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	94a
	Verdict	5.57	L	10	fl oz/a	0.435	lb ai/a	PRE	A	99a
5	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	88a
	Aatrex	4	L	1.5	qt/a	1.5	lb ai/a	PRE	A	91ab
6	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	V4 CORNB		76b
	Aatrex	4	L	1.5	qt/a	1.5	lb ai/a	V4 CORNB		96a
	RoundupPowerMax	4.5	L	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
7	Bicep II Magnum	5.5	L	2.1	qt/a	2.9	lb ai/a	PRE	A	94a
										95ab
8	Lexar	3.75	L	3	qt/a	2.8	lb ai/a	PRE	A	96a
										100a
9	Halex GT	4.38	L	3.6	pt/a	1.97	lb ai/a	V4 CORNB		76b
	Aatrex	4	L	1	qt/a	1	lb ai/a	V4 CORNB		98a
10	RoundupPowerMax	4.5	L	22	fl oz/a	0.77	lb ae/a	V4 CORNB		70b
	Aatrex	4	L	1.5	qt/a	1.5	lb ai/a	V4 CORNB		95ab

School of Plant, Environmental, and Soil Sciences

Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	7 DA POST	7 DA POST
Rating Date	May/9/2012	May/9/2012
Rating Type	Control	Control
Rating Unit	%	%
LSD (P=.05)	7.4	6.0
Standard Deviation	5.1	4.2
CV	6.58	4.84
Bartlett's X2	13.332	8.963
P(Bartlett's X2)	0.101	0.176
Skewness	-2.2044*	-2.6204*
Kurtosis	3.9532*	5.4305*
Replicate F	1.500	0.707
Replicate Prob(F)	0.2369	0.5562
Treatment F	126.337	214.230
Treatment Prob(F)	0.0001	0.0001

School of Plant, Environmental, and Soil Sciences

Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed
Pest Code	ECHCG
Pest Scientific Name	Echinochloa cr>
Pest Name	Common barnyar>
Crop Name	Corn
Description	7 DA POST 14 DA POST
Rating Date	May/9/2012 May/16/2012
Rating Type	Injury Control
Rating Unit	% %

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Unit	Other Rate	Other Unit	Growth Stage	Appl Code		
1	Nontreated									0a	0c
2	Zidua	85	DF	2.5	oz wt/a	0.133	lb ai/a	PRE	A	0a	84ab
3	Zidua Sharpen	85 2.85	DF L	2 2	oz wt/a fl oz/a	0.106 0.0445	lb ai/a lb ai/a	PRE PRE	A A	0a	84ab
4	Zidua Verdict	85 5.57	DF L	2 10	oz wt/a fl oz/a	0.106 0.435	lb ai/a lb ai/a	PRE PRE	A A	0a	90a
5	Zidua Aatrex	85 4	DF L	2 1.5	oz wt/a qt/a	0.106 1.5	lb ai/a lb ai/a	PRE PRE	A A	0a	85ab
6	Zidua Aatrex RoundupPowerMax	85 4 4.5	DF L L	2 1.5 22	oz wt/a qt/a fl oz/a	0.106 1.5 0.77	lb ai/a lb ai/a lb ae/a	V4 CORNB V4 CORNB V4 CORNB		0a	80ab
7	Bicep II Magnum	5.5	L	2.1	qt/a	2.9	lb ai/a	PRE	A	0a	91a
8	Lexar	3.75	L	3	qt/a	2.8	lb ai/a	PRE	A	0a	91a
9	Halex GT Aatrex	4.38 4	L L	3.6 1	pt/a qt/a	1.97 1	lb ai/a lb ai/a	V4 CORNB V4 CORNB		0a	76b
10	RoundupPowerMax Aatrex	4.5 4	L L	22 1.5	fl oz/a qt/a	0.77 1.5	lb ae/a lb ai/a	V4 CORNB V4 CORNB		0a	74b

School of Plant, Environmental, and Soil Sciences

Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	
Pest Code	ECHCG	
Pest Scientific Name	Echinochloa cr>	
Pest Name	Common barnyar>	
Crop Name	Corn	
Description	7 DA POST	14 DA POST
Rating Date	May/9/2012	May/16/2012
Rating Type	Injury	Control
Rating Unit	%	%
LSD (P=.05)	0.0	9.0
Standard Deviation	0.0	6.2
CV	0.0	8.25
Bartlett's X2	0.0	12.866
P(Bartlett's X2)	.	0.117
Skewness	.	-2.309*
Kurtosis	.	4.4113*
Replicate F	0.000	2.277
Replicate Prob(F)	1.0000	0.1024
Treatment F	0.000	76.260
Treatment Prob(F)	1.0000	0.0001

School of Plant, Environmental, and Soil Sciences

Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed
Pest Code	AMASS
Pest Scientific Name	Amaranthus sp.
Pest Name	Amaranth
Crop Name	Corn
Description	14 DA POST
Rating Date	May/16/2012
Rating Type	Control
Rating Unit	%

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Unit	Other Rate	Other Rate	Unit	Growth Stage	Appl Code		
1	Nontreated									0b		0a
2	Zidua	85	DF	2.5	oz wt/a	0.133	lb ai/a		PRE	A	89a	0a
3	Zidua Sharpen	85 2.85	DF L	2 2	oz wt/a fl oz/a	0.106 0.0445	lb ai/a lb ai/a		PRE PRE	A A	95a	0a
4	Zidua Verdict	85 5.57	DF L	2 10	oz wt/a fl oz/a	0.106 0.435	lb ai/a lb ai/a		PRE PRE	A A	98a	0a
5	Zidua Aatrex	85 4	DF L	2 1.5	oz wt/a qt/a	0.106 1.5	lb ai/a lb ai/a		PRE PRE	A A	90a	0a
6	Zidua Aatrex RoundupPowerMax	85 4 4.5	DF L L	2 1.5 22	oz wt/a qt/a fl oz/a	0.106 1.5 0.77	lb ai/a lb ai/a lb ae/a		V4 CORNB V4 CORNB V4 CORNB		95a	0a
7	Bicep II Magnum	5.5	L	2.1	qt/a	2.9	lb ai/a		PRE	A	90a	0a
8	Lexar	3.75	L	3	qt/a	2.8	lb ai/a		PRE	A	96a	0a
9	Halex GT Aatrex	4.38 4	L L	3.6 1	pt/a qt/a	1.97 1	lb ai/a lb ai/a		V4 CORNB V4 CORNB		95a	0a
10	RoundupPowerMax Aatrex	4.5 4	L L	22 1.5	fl oz/a qt/a	0.77 1.5	lb ae/a lb ai/a		V4 CORNB V4 CORNB		94a	0a

School of Plant, Environmental, and Soil Sciences

Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	
Pest Code	AMASS	
Pest Scientific Name	Amaranthus sp.	
Pest Name	Amaranth	
Crop Name	Corn	
Description	14 DA POST	14 DA POST
Rating Date	May/16/2012	May/16/2012
Rating Type	Control	Injury
Rating Unit	%	%
LSD (P=.05)	6.4	0.0
Standard Deviation	4.4	0.0
CV	5.24	0.0
Bartlett's X2	9.881	0.0
P(Bartlett's X2)	0.13	.
Skewness	-2.6296*	.
Kurtosis	5.4678*	.
Replicate F	1.834	0.000
Replicate Prob(F)	0.1647	1.0000
Treatment F	181.720	0.000
Treatment Prob(F)	0.0001	1.0000

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Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	28 DA POST	28 DA POST
Rating Date	May/30/2012	May/30/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Type	Rate	Unit	Rate	Unit	Stage	Code	
1	Nontreated								0c	0b
2	Zidua	85	DF	2.5	oz wt/a	0.133	lb ai/a	PRE	A	85ab
3	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	85ab
	Sharpen	2.85	L	2	fl oz/a	0.0445	lb ai/a	PRE	A	99a
4	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	85ab
	Verdict	5.57	L	10	fl oz/a	0.435	lb ai/a	PRE	A	100a
5	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	84ab
	Aatrex	4	L	1.5	qt/a	1.5	lb ai/a	PRE	A	99a
6	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	V4 CORNB		83ab
	Aatrex	4	L	1.5	qt/a	1.5	lb ai/a	V4 CORNB		100a
	RoundupPowerMax	4.5	L	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
7	Bicep II Magnum	5.5	L	2.1	qt/a	2.9	lb ai/a	PRE	A	83ab
										98a
8	Lexar	3.75	L	3	qt/a	2.8	lb ai/a	PRE	A	89a
										100a
9	Halex GT	4.38	L	3.6	pt/a	1.97	lb ai/a	V4 CORNB		74b
	Aatrex	4	L	1	qt/a	1	lb ai/a	V4 CORNB		100a
10	RoundupPowerMax	4.5	L	22	fl oz/a	0.77	lb ae/a	V4 CORNB		74b
	Aatrex	4	L	1.5	qt/a	1.5	lb ai/a	V4 CORNB		100a

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Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	28 DA POST	28 DA POST
Rating Date	May/30/2012	May/30/2012
Rating Type	Control	Control
Rating Unit	%	%
LSD (P=.05)	8.9	5.9
Standard Deviation	6.1	4.1
CV	8.27	4.57
Bartlett's X2	3.986	11.746
P(Bartlett's X2)	0.858	0.008*
Skewness	-2.3871*	-2.6862*
Kurtosis	4.6779*	5.6372*
Replicate F	1.579	0.860
Replicate Prob(F)	0.2175	0.4740
Treatment F	74.627	237.303
Treatment Prob(F)	0.0001	0.0001

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Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed		
Pest Code	I POSS		
Pest Scientific Name	Ipomoea sp.		
Pest Name	Morning glory		
Crop Name	Corn		
Description	28 DA POST	28 DA POST	28 DA POST
Rating Date	May/30/2012	May/30/2012	May/30/2012
Rating Type	Control	Control	Injury
Rating Unit	%	%	%

Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl			
No.	Name	Conc	Type	Rate	Unit	Rate	Unit	Stage	Code		
1	Nontreated								0b	0c	0a
2	Zidua	85	DF	2.5	oz wt/a	0.133	lb ai/a	PRE	A	89a	94ab
3	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	94a	99a
	Sharpen	2.85	L	2	fl oz/a	0.0445	lb ai/a	PRE	A		0a
4	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	98a	100a
	Verdict	5.57	L	10	fl oz/a	0.435	lb ai/a	PRE	A		0a
5	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	86a	93ab
	Aatrex	4	L	1.5	qt/a	1.5	lb ai/a	PRE	A		0a
6	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	V4 CORNB	99a	100a	0a
	Aatrex	4	L	1.5	qt/a	1.5	lb ai/a	V4 CORNB			
	RoundupPowerMax	4.5	L	22	fl oz/a	0.77	lb ae/a	V4 CORNB			
7	Bicep II Magnum	5.5	L	2.1	qt/a	2.9	lb ai/a	PRE	A	88a	88b
8	Lexar	3.75	L	3	qt/a	2.8	lb ai/a	PRE	A	93a	100a
9	Halex GT	4.38	L	3.6	pt/a	1.97	lb ai/a	V4 CORNB	100a	100a	0a
	Aatrex	4	L	1	qt/a	1	lb ai/a	V4 CORNB			
10	RoundupPowerMax	4.5	L	22	fl oz/a	0.77	lb ae/a	V4 CORNB	98a	98a	0a
	Aatrex	4	L	1.5	qt/a	1.5	lb ai/a	V4 CORNB			

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Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed	
Pest Code	IPOSS	SIDSP	
Pest Scientific Name	Ipomoea sp.	Sida spinosa	
Pest Name	Morning glory	Prickly sida	
Crop Name			Corn
Description	28 DA POST	28 DA POST	28 DA POST
Rating Date	May/30/2012	May/30/2012	May/30/2012
Rating Type	Control	Control	Injury
Rating Unit	%	%	%
LSD (P=.05)	12.6	7.0	0.0
Standard Deviation	8.7	4.8	0.0
CV	10.3	5.54	0.0
Bartlett's X2	17.579	7.747	0.0
P(Bartlett's X2)	0.014*	0.101	.
Skewness	-2.3499*	-2.5963*	.
Kurtosis	4.387*	5.3225*	.
Replicate F	1.643	0.391	0.000
Replicate Prob(F)	0.2027	0.7603	1.0000
Treatment F	47.760	163.899	0.000
Treatment Prob(F)	0.0001	0.0001	1.0000

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Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	42 DA POST	42 DA POST
Rating Date	Jun/16/2012	Jun/16/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Type	Rate	Unit	Rate	Rate	Unit	Stage	Code
1	Nontreated									0d
2	Zidua	85	DF	2.5	oz wt/a	0.133	lb ai/a	PRE	A	75abc
3	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	76abc
	Sharpen	2.85	L	2	fl oz/a	0.0445	lb ai/a	PRE	A	99a
4	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	83ab
	Verdict	5.57	L	10	fl oz/a	0.435	lb ai/a	PRE	A	100a
5	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	78ab
	Aatrex	4	L	1.5	qt/a	1.5	lb ai/a	PRE	A	89a
6	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	V4 CORNB		74abc
	Aatrex	4	L	1.5	qt/a	1.5	lb ai/a	V4 CORNB		100a
	RoundupPowerMax	4.5	L	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
7	Bicep II Magnum	5.5	L	2.1	qt/a	2.9	lb ai/a	PRE	A	84ab
8	Lexar	3.75	L	3	qt/a	2.8	lb ai/a	PRE	A	88a
9	Halex GT	4.38	L	3.6	pt/a	1.97	lb ai/a	V4 CORNB		69bc
	Aatrex	4	L	1	qt/a	1	lb ai/a	V4 CORNB		100a
10	RoundupPowerMax	4.5	L	22	fl oz/a	0.77	lb ae/a	V4 CORNB		60c
	Aatrex	4	L	1.5	qt/a	1.5	lb ai/a	V4 CORNB		98a

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Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	42 DA POST	42 DA POST
Rating Date	Jun/16/2012	Jun/16/2012
Rating Type	Control	Control
Rating Unit	%	%
LSD (P=.05)	11.7	8.3
Standard Deviation	8.0	5.7
CV	11.7	6.63
Bartlett's X2	5.382	6.589
P(Bartlett's X2)	0.716	0.159
Skewness	-1.9803*	-2.5195*
Kurtosis	3.3035*	5.0286*
Replicate F	1.114	1.775
Replicate Prob(F)	0.3608	0.1758
Treatment F	39.889	115.259
Treatment Prob(F)	0.0001	0.0001

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Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed		
Pest Code	I POSS		
Pest Scientific Name	Ipomoea sp.		
Pest Name	Morning glory		
Crop Name	Corn		
Description	42 DA POST	42 DA POST	42 DA POST
Rating Date	Jun/16/2012	Jun/16/2012	Jun/16/2012
Rating Type	Control	Control	Injury
Rating Unit	%	%	%

Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl			
No.	Name	Conc	Type	Rate	Unit	Rate	Unit	Stage	Code		
1	Nontreated								0b	0c	0a
2	Zidua	85	DF	2.5	oz wt/a	0.133	lb ai/a	PRE	A	83a	0a
3	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	86a	0a
	Sharpen	2.85	L	2	fl oz/a	0.0445	lb ai/a	PRE	A	94a	0a
4	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	95a	0a
	Verdict	5.57	L	10	fl oz/a	0.435	lb ai/a	PRE	A	99a	0a
5	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	80a	0a
	Aatrex	4	L	1.5	qt/a	1.5	lb ai/a	PRE	A	84ab	0a
6	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	V4 CORNB	90a	100a	0a
	Aatrex	4	L	1.5	qt/a	1.5	lb ai/a	V4 CORNB			
	RoundupPowerMax	4.5	L	22	fl oz/a	0.77	lb ae/a	V4 CORNB			
7	Bicep II Magnum	5.5	L	2.1	qt/a	2.9	lb ai/a	PRE	A	71a	0a
8	Lexar	3.75	L	3	qt/a	2.8	lb ai/a	PRE	A	86a	0a
9	Halex GT	4.38	L	3.6	pt/a	1.97	lb ai/a	V4 CORNB	86a	100a	0a
	Aatrex	4	L	1	qt/a	1	lb ai/a	V4 CORNB			
10	RoundupPowerMax	4.5	L	22	fl oz/a	0.77	lb ae/a	V4 CORNB	93a	96a	0a
	Aatrex	4	L	1.5	qt/a	1.5	lb ai/a	V4 CORNB			

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Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed	
Pest Code	IPOSS	SIDSP	
Pest Scientific Name	Ipomoea sp.	Sida spinosa	
Pest Name	Morning glory	Prickly sida	
Crop Name			Corn
Description	42 DA POST	42 DA POST	42 DA POST
Rating Date	Jun/16/2012	Jun/16/2012	Jun/16/2012
Rating Type	Control	Control	Injury
Rating Unit	%	%	%
LSD (P=.05)	21.3	11.2	0.0
Standard Deviation	14.7	7.7	0.0
CV	19.08	9.23	0.0
Bartlett's X2	3.901	13.449	0.0
P(Bartlett's X2)	0.866	0.036*	.
Skewness	-1.6867*	-2.2321*	.
Kurtosis	2.3095*	3.9786*	.
Replicate F	1.159	0.477	0.000
Replicate Prob(F)	0.3436	0.7007	1.0000
Treatment F	14.403	62.663	0.000
Treatment Prob(F)	0.0001	0.0001	1.0000

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Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	At Harvest	At Harvest
Rating Date	Aug/26/2012	Aug/26/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Type	Rate	Unit	Rate	Rate	Unit	Stage	Code
1	Nontreated									0c
2	Zidua	85	DF	2.5	oz wt/a	0.133	lb ai/a	PRE	A	79a
3	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	83a
	Sharpen	2.85	L	2	fl oz/a	0.0445	lb ai/a	PRE	A	
4	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	81a
	Verdict	5.57	L	10	fl oz/a	0.435	lb ai/a	PRE	A	
5	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	81a
	Aatrex	4	L	1.5	qt/a	1.5	lb ai/a	PRE	A	
6	Zidua	85	DF	2	oz wt/a	0.106	lb ai/a	V4 CORNB		84a
	Aatrex	4	L	1.5	qt/a	1.5	lb ai/a	V4 CORNB		
	RoundupPowerMax	4.5	L	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
7	Bicep II Magnum	5.5	L	2.1	qt/a	2.9	lb ai/a	PRE	A	84a
8	Lexar	3.75	L	3	qt/a	2.8	lb ai/a	PRE	A	89a
9	Halex GT	4.38	L	3.6	pt/a	1.97	lb ai/a	V4 CORNB		76a
	Aatrex	4	L	1	qt/a	1	lb ai/a	V4 CORNB		
10	RoundupPowerMax	4.5	L	22	fl oz/a	0.77	lb ae/a	V4 CORNB		65b
	Aatrex	4	L	1.5	qt/a	1.5	lb ai/a	V4 CORNB		

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Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	ECHCG	AMASS
Pest Scientific Name	Echinochloa cr>	Amaranthus sp.
Pest Name	Common barnyar>	Amaranth
Description	At Harvest	At Harvest
Rating Date	Aug/26/2012	Aug/26/2012
Rating Type	Control	Control
Rating Unit	%	%
LSD (P=.05)	10.8	3.5
Standard Deviation	7.4	2.4
CV	10.3	2.86
Bartlett's X2	12.363	3.095
P(Bartlett's X2)	0.136	0.797
Skewness	-2.1857*	-2.729*
Kurtosis	3.9449*	5.8303*
Replicate F	2.217	1.887
Replicate Prob(F)	0.1091	0.1556
Treatment F	49.426	604.839
Treatment Prob(F)	0.0001	0.0001

School of Plant, Environmental, and Soil Sciences

Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	IPOSS	SIDSP
Pest Scientific Name	Ipomoea sp.	Sida spinosa
Pest Name	Morning glory	Prickly sida
Description	At Harvest	At Harvest
Rating Date	Aug/26/2012	Aug/26/2012
Rating Type	Control	Control
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	Nontreated							0b		0b
2	Zidua	85	DF	2.5 oz wt/a	0.133	lb ai/a	PRE	A	86a	80a
3	Zidua Sharpen	85 2.85	DF L	2 2	oz wt/a fl oz/a	0.106 0.0445	lb ai/a lb ai/a	PRE PRE	A A	85a 91a
4	Zidua Verdict	85 5.57	DF L	2 10	oz wt/a fl oz/a	0.106 0.435	lb ai/a lb ai/a	PRE PRE	A A	89a 94a
5	Zidua Aatrex	85 4	DF L	2 1.5	oz wt/a qt/a	0.106 1.5	lb ai/a lb ai/a	PRE PRE	A A	84a 84a
6	Zidua Aatrex RoundupPowerMax	85 4 4.5	DF L L	2 1.5 22	oz wt/a qt/a fl oz/a	0.106 1.5 0.77	lb ai/a lb ai/a lb ae/a	V4 CORNB V4 CORNB V4 CORNB	86a	95a
7	Bicep II Magnum	5.5	L	2.1	qt/a	2.9	lb ai/a	PRE	A	71a 81a
8	Lexar	3.75	L	3	qt/a	2.8	lb ai/a	PRE	A	78a 91a
9	Halex GT Aatrex	4.38 4	L L	3.6 1	pt/a qt/a	1.97 1	lb ai/a lb ai/a	V4 CORNB V4 CORNB	89a	91a
10	RoundupPowerMax Aatrex	4.5 4	L L	22 1.5	fl oz/a qt/a	0.77 1.5	lb ae/a lb ai/a	V4 CORNB V4 CORNB	84a	89a

School of Plant, Environmental, and Soil Sciences

Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	W Weed
Pest Code	IPOSS	SIDSP
Pest Scientific Name	Ipomoea sp.	Sida spinosa
Pest Name	Morning glory	Prickly sida
Description	At Harvest	At Harvest
Rating Date	Aug/26/2012	Aug/26/2012
Rating Type	Control	Control
Rating Unit	%	%
LSD (P=.05)	20.5	10.6
Standard Deviation	14.1	7.3
CV	18.83	9.19
Bartlett's X2	4.604	8.201
P(Bartlett's X2)	0.799	0.315
Skewness	-1.7853*	-2.393*
Kurtosis	2.4107*	4.6094*
Replicate F	1.585	0.230
Replicate Prob(F)	0.2160	0.8748
Treatment F	14.498	60.521
Treatment Prob(F)	0.0001	0.0001

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Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed
Pest Scientific Name	Phyllanthus ur>
Pest Name	Chamber bitter
Crop Name	Corn
Description	At Harvest
Rating Date	Aug/26/2012
Rating Type	Control
Rating Unit	%

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	Nontreated								0b		0a
2	Zidua	85	DF	2.5	oz wt/a	0.133	lb ai/a	PRE	A	84a	0a
3	Zidua Sharpen	85 2.85	DF L	2 2	oz wt/a fl oz/a	0.106 0.0445	lb ai/a lb ai/a	PRE PRE	A A	91a	0a
4	Zidua Verdict	85 5.57	DF L	2 10	oz wt/a fl oz/a	0.106 0.435	lb ai/a lb ai/a	PRE PRE	A A	89a	0a
5	Zidua Aatrex	85 4	DF L	2 1.5	oz wt/a qt/a	0.106 1.5	lb ai/a lb ai/a	PRE PRE	A A	86a	0a
6	Zidua Aatrex RoundupPowerMax	85 4 4.5	DF L L	2 1.5 22	oz wt/a qt/a fl oz/a	0.106 1.5 0.77	lb ai/a lb ai/a lb ae/a	V4 CORNB V4 CORNB V4 CORNB	86a		0a
7	Bicep II Magnum	5.5	L	2.1	qt/a	2.9	lb ai/a	PRE	A	85a	0a
8	Lexar	3.75	L	3	qt/a	2.8	lb ai/a	PRE	A	85a	0a
9	Halex GT Aatrex	4.38 4	L L	3.6 1	pt/a qt/a	1.97 1	lb ai/a lb ai/a	V4 CORNB V4 CORNB	83a		0a
10	RoundupPowerMax Aatrex	4.5 4	L L	22 1.5	fl oz/a qt/a	0.77 1.5	lb ae/a lb ai/a	V4 CORNB V4 CORNB	83a		0a

School of Plant, Environmental, and Soil Sciences

Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Pest Type	W Weed	
Pest Scientific Name	Phyllanthus ur>	
Pest Name	Chamber bitter	
Crop Name		Corn
Description	At Harvest	At Harvest
Rating Date	Aug/26/2012	Aug/26/2012
Rating Type	Control	Injury
Rating Unit	%	%
LSD (P=.05)	10.0	0.0
Standard Deviation	6.9	0.0
CV	8.93	0.0
Bartlett's X2	1.896	0.0
P(Bartlett's X2)	0.984	.
Skewness	-2.4693*	.
Kurtosis	4.9733*	.
Replicate F	0.785	0.000
Replicate Prob(F)	0.5125	1.0000
Treatment F	62.488	0.000
Treatment Prob(F)	0.0001	1.0000

School of Plant, Environmental, and Soil Sciences

Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Crop Name										Corn	Corn	Corn	
Rating Date										Aug/27/2012	Aug/27/2012	Aug/27/2012	
Rating Type										Test Weight	Moisture	Plot Weight	
Rating Unit										lbs/bu	%	lbs	
Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl					
No.	Name	Conc	Type	Rate	Unit	Rate	Rate	Unit	Stage	Code			
1	Nontreated										50.5a	17.4a	16.0b
2	Zidua	85	DF	2.5	oz wt/a	0.133	lb ai/a		PRE	A	52.7a	17.6a	17.5b
3	Zidua Sharpen	85 2.85	DF L	2 2	oz wt/a fl oz/a	0.106 0.0445	lb ai/a lb ai/a		PRE PRE	A A	54.0a	17.0a	26.8a
4	Zidua Verdict	85 5.57	DF L	2 10	oz wt/a fl oz/a	0.106 0.435	lb ai/a lb ai/a		PRE PRE	A A	55.7a	17.0a	33.5a
5	Zidua Aatrex	85 4	DF L	2 1.5	oz wt/a qt/a	0.106 1.5	lb ai/a lb ai/a		PRE PRE	A A	54.2a	16.8a	33.4a
6	Zidua Aatrex RoundupPowerMax	85 4 4.5	DF L L	2 1.5 22	oz wt/a qt/a fl oz/a	0.106 1.5 0.77	lb ai/a lb ai/a lb ae/a		V4 CORNB V4 CORNB V4 CORNB		54.4a	17.4a	29.0a
7	Bicep II Magnum	5.5	L	2.1	qt/a	2.9	lb ai/a		PRE	A	54.3a	17.0a	32.6a
8	Lexar	3.75	L	3	qt/a	2.8	lb ai/a		PRE	A	54.4a	17.1a	25.9a
9	Halex GT Aatrex	4.38 4	L L	3.6 1	pt/a qt/a	1.97 1	lb ai/a lb ai/a		V4 CORNB V4 CORNB		52.4a	17.1a	33.2a
10	RoundupPowerMax Aatrex	4.5 4	L L	22 1.5	fl oz/a qt/a	0.77 1.5	lb ae/a lb ai/a		V4 CORNB V4 CORNB		51.4a	17.8a	29.5a

School of Plant, Environmental, and Soil Sciences

Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Crop Name	Corn	Corn	Corn
Rating Date	Aug/27/2012	Aug/27/2012	Aug/27/2012
Rating Type	Test Weight	Moisture	Plot Weight
Rating Unit	lbs/bu	%	lbs
LSD (P=.05)	4.30	0.73	6.73
Standard Deviation	2.97	0.51	4.64
CV	5.56	2.94	16.72
Bartlett's X2	10.752	17.31	7.247
P(Bartlett's X2)	0.293	0.044*	0.611
Skewness	-1.1611*	2.4962*	-0.6339
Kurtosis	0.7551	10.0788*	-0.7296
Replicate F	3.378	1.355	0.445
Replicate Prob(F)	0.0327	0.2776	0.7226
Treatment F	1.158	1.607	7.646
Treatment Prob(F)	0.3596	0.1632	0.0001

School of Plant, Environmental, and Soil Sciences

Zidua Programs in Corn

Trial ID: 12CRN02MH
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Project ID: Corn Weed Management
 Study Director: Marshall Hardwick

Crop Name	Corn
Rating Date	Aug/27/2012
Rating Type	YIELD
Rating Unit	BU

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
1	Nontreated									80.6b
2	Zidua	85	DF	2.5	oz wt/a	0.133	lb ai/a	PRE	A	87.9b
3	Zidua Sharpen	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	135.7a
		2.85	L	2	fl oz/a	0.0445	lb ai/a	PRE	A	
4	Zidua Verdict	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	169.6a
		5.57	L	10	fl oz/a	0.435	lb ai/a	PRE	A	
5	Zidua Aatrex	85	DF	2	oz wt/a	0.106	lb ai/a	PRE	A	169.4a
		4	L	1.5	qt/a	1.5	lb ai/a	PRE	A	
6	Zidua Aatrex RoundupPowerMax	85	DF	2	oz wt/a	0.106	lb ai/a	V4 CORNB		145.9a
		4	L	1.5	qt/a	1.5	lb ai/a	V4 CORNB		
		4.5	L	22	fl oz/a	0.77	lb ae/a	V4 CORNB		
7	Bicep II Magnum	5.5	L	2.1	qt/a	2.9	lb ai/a	PRE	A	165.2a
8	Lexar	3.75	L	3	qt/a	2.8	lb ai/a	PRE	A	130.9a
9	Halex GT Aatrex	4.38	L	3.6	pt/a	1.97	lb ai/a	V4 CORNB		167.6a
		4	L	1	qt/a	1	lb ai/a	V4 CORNB		
10	RoundupPowerMax Aatrex	4.5	L	22	fl oz/a	0.77	lb ae/a	V4 CORNB		147.9a
		4	L	1.5	qt/a	1.5	lb ai/a	V4 CORNB		

School of Plant, Environmental, and Soil Sciences

Zidua Programs in Corn

Trial ID: 12CRN02MH
Location: Ben Hur Research Farm
Investigator: Dr. James L. Griffin
Project ID: Corn Weed Management
Study Director: Marshall Hardwick

Crop Name	Corn
Rating Date	Aug/27/2012
Rating Type	YIELD
Rating Unit	BU

LSD (P=.05)	34.12
Standard Deviation	23.52
CV	16.79
Bartlett's X2	7.006
P(Bartlett's X2)	0.637
Skewness	-0.622
Kurtosis	-0.7197

Replicate F	0.399
Replicate Prob(F)	0.7550
Treatment F	7.696
Treatment Prob(F)	0.0001

Glyphosate-resistant and Glyphosate-susceptible Rhizome Johnsongrass Control Options

LSU AgCenter

School of Plant, Environmental, and Soil Sciences

Experiment number : 12GH02JG
 Location : LSU Greenhouse Complex
 Experimental design : Randomized Complete Block
 Number of reps : 4
 Plot size : 1 gallon pot
 Row width/# per plot : N/A
 Soil type : 2 river silt: 1 Jiffy Mix Plus
 OM (%) : N/A
 pH : N/A
 Planting date : 03-14-12
 Harvest date : N/A
 Crop/Variety : Johnsongrass/N/A
 Uniform std. treatment : N/A

Application type : POST A
 Date applied (mm-dd-yy) : 04-18-12
 Time (hh:mm-hh:mm) : 3:00-3:45pm
 Incorporation equipment : N/A
 Incorporation depth : N/A
 Air/Soil temperature (F) : 77/77
 Wind (mph/direction) : 9/NW
 Relative humidity (%) : 44
 Soil/Leaf surface moist : moist/dry
 Crop stage/height : 6-7 leaf / 24-42"
 Sprayer type/mpg : CO₂bkpk/3.0
 Nozzle type/size : FF/TTI11002
 Boom ht/#noz/spacing (in) : 18"/4/18"
 GPA/psi (at nozzle) : 15/28
 Applied by : Hodges

Weed species : population per ft²/height/# leaves
 SORHA : 6-7lf

Rainfall (in.)
 0-24 hr/1-3 days : -- / --
 4-7 days/2nd week : -- / --
 3rd week/4th week : -- / --

Comments:

This experiment was conducted by Lane Hodges as part of an undergraduate research project. Rhizomes of glyphosate-resistant and glyphosate-susceptible johnsongrass were planted in the greenhouse on March 14, 2012. Plants were fertilized with Miracle Grow on April 2 and herbicide treatments were applied April 18.

School of Plant, Environmental, and Soil Sciences

Glyphosate-resistant and Glyphosate-susceptible Rhizome Johnsongrass Control Options

Trial ID: 12GH02JG
 Location: LSU Greenhouse Complex
 Investigator: Dr. James L. Griffin
 Study Director: Lane Hodges

Pest Type									W Weed	W Weed	W Weed
Pest Code									SORHA	SORHA	SORHA
Pest Scientific Name									Sorghum hal>	Sorghum hal>	Sorghum hal>
Pest Name									Johnson grass	Johnson grass	Johnson grass
Rating Date									Apr/18/2012	Apr/18/2012	May/9/2012
Rating Type									Collar Ht	Plant Ht	Collar Ht
Rating Unit									mm	mm	mm
Trt No.	Treatment Name	Form Conc	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	Touchdown NIS Susceptible	600	1680 0.25	g ae/ha % v/v	38.3 0.25	oz/a % v/v	5-6lf	POST A	328a	969a	340c
2	Touchdown NIS Susceptible	600	840 0.25	g ae/ha % v/v	19.2 0.25	oz/a % v/v	5-6lf	POST A	326a	995a	350c
3	Nontreated Susceptible								316a	915a	1013a
4	Touchdown NIS Resistant	600	1680 0.25	g ae/ha % v/v	38.3 0.25	oz/a % v/v	5-6lf	POST A	284a	906a	876a
5	Touchdown NIS Resistant	600	840 0.25	g ae/ha % v/v	19.2 0.25	oz/a % v/v	5-6lf	POST A	295a	904a	945a
6	Touchdown NIS Resistant	600	3360 0.25	g ae/ha % v/v	77 0.25	oz/a % v/v	5-6lf	POST A	260a	879a	869a
7	Touchdown NIS Resistant	600	6720 0.25	g ae/ha % v/v	153 0.25	oz/a % v/v	5-6lf	POST A	308a	958a	473bc
8	Select COC Susceptible	240	140 1	g ai/ha % v/v	8 1	oz/a % v/v	5-6lf	POST A	316a	997a	325c
9	Select COC Susceptible	240	210 1	g ai/ha % v/v	12 1	oz/a % v/v	5-6lf	POST A	305a	973a	321c
10	Select COC Resistant	240	140 1	g ai/ha % v/v	8 1	oz/a % v/v	5-6lf	POST A	275a	944a	294c

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Glyphosate-resistant and Glyphosate-susceptible Rhizome Johnsongrass Control Options

Trial ID: 12GH02JG
 Location: LSU Greenhouse Complex
 Investigator: Dr. James L. Griffin
 Study Director: Lane Hodges

Pest Type	W Weed	W Weed	W Weed
Pest Code	SORHA	SORHA	SORHA
Pest Scientific Name	Sorghum hal>	Sorghum hal>	Sorghum hal>
Pest Name	Johnson grass	Johnson grass	Johnson grass
Rating Date	Apr/18/2012	Apr/18/2012	May/9/2012
Rating Type	Collar Ht	Plant Ht	Collar Ht
Rating Unit	mm	mm	mm

Trt No.	Treatment Name	Form Conc	Rate Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
11	Select COC Resistant	240	210 1	g ai/ha % v/v	12 1	oz/a % v/v	5-6lf	POST A	286a	933a	299c
12	Nontreated Resistant								278a	860a	624b

LSD (P=.05)	66.4	111.0	171.4
Standard Deviation	46.0	76.9	117.7
CV	15.42	8.21	20.99
Bartlett's X2	18.652	6.832	26.878
P(Bartlett's X2)	0.068	0.813	0.005*
Skewness	0.2264	0.1723	0.9578*
Kurtosis	-0.9603	-0.6885	-0.5984
Replicate F	20.095	22.800	9.381
Replicate Prob(F)	0.0001	0.0001	0.0002
Treatment F	0.898	1.329	23.729
Treatment Prob(F)	0.5524	0.2528	0.0001

School of Plant, Environmental, and Soil Sciences

Glyphosate-resistant and Glyphosate-susceptible Rhizome Johnsongrass Control Options

Trial ID: 12GH02JG
 Location: LSU Greenhouse Complex
 Investigator: Dr. James L. Griffin
 Study Director: Lane Hodges

Pest Type	W Weed	W Weed
Pest Code	SORHA	SORHA
Pest Scientific Name	Sorghum halepe>	Sorghum halepe>
Pest Name	Johnson grass	Johnson grass
Rating Date	May/9/2012	May/9/2012
Rating Type	Plant Ht	Control
Rating Unit	mm	%

Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
1	Touchdown NIS Susceptible	600	1680 g ae/ha 0.25 % v/v	38.3 oz/a 0.25 % v/v		5-6lf	POST A 956b	90a
2	Touchdown NIS Susceptible	600	840 g ae/ha 0.25 % v/v	19.2 oz/a 0.25 % v/v		5-6lf	POST A 984b	87a
3	Nontreated Susceptible						1303a	0e
4	Touchdown NIS Resistant	600	1680 g ae/ha 0.25 % v/v	38.3 oz/a 0.25 % v/v		5-6lf	POST A 1161ab	11e
5	Touchdown NIS Resistant	600	840 g ae/ha 0.25 % v/v	19.2 oz/a 0.25 % v/v		5-6lf	POST A 1302a	11e
6	Touchdown NIS Resistant	600	3360 g ae/ha 0.25 % v/v	77 oz/a 0.25 % v/v		5-6lf	POST A 1254a	8e
7	Touchdown NIS Resistant	600	6720 g ae/ha 0.25 % v/v	153 oz/a 0.25 % v/v		5-6lf	POST A 945b	36d
8	Select COC Susceptible	240	140 g ai/ha 1 % v/v	8 oz/a 1 % v/v		5-6lf	POST A 983b	54bc
9	Select COC Susceptible	240	210 g ai/ha 1 % v/v	12 oz/a 1 % v/v		5-6lf	POST A 965b	59b
10	Select COC Resistant	240	140 g ai/ha 1 % v/v	8 oz/a 1 % v/v		5-6lf	POST A 955b	44cd

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Glyphosate-resistant and Glyphosate-susceptible Rhizome Johnsongrass Control Options

Trial ID: 12GH02JG
 Location: LSU Greenhouse Complex
 Investigator: Dr. James L. Griffin
 Study Director: Lane Hodges

Pest Type	W Weed	W Weed
Pest Code	SORHA	SORHA
Pest Scientific Name	Sorghum halepe>	Sorghum halepe>
Pest Name	Johnson grass	Johnson grass
Rating Date	May/9/2012	May/9/2012
Rating Type	Plant Ht	Control
Rating Unit	mm	%

Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
11	Select COC Resistant	240	210 g ai/ha 1 % v/v	12	oz/a 1 % v/v	5-6lf	POST A921b	68b	
12	Nontreated Resistant						1151ab	0e	

LSD (P=.05)	169.6	11.6
Standard Deviation	116.4	8.0
CV	10.85	20.47
Bartlett's X2	8.637	7.302
P(Bartlett's X2)	0.655	0.398
Skewness	0.5096	-0.0143
Kurtosis	-0.0685	-1.4532
Replicate F	9.619	0.491
Replicate Prob(F)	0.0002	0.6914
Treatment F	6.611	68.043
Treatment Prob(F)	0.0001	0.0001

Residual Activity of Herbicides for Use in DTS Soybean
LSU AgCenter
 School of Plant, Environmental, and Soil Sciences

Experiment number : 12GN01JG
 Location..... : Ben Hur Research Farm
 Experimental design : Randomized Complete Block
 Number of reps : 3
 Plot size : 11.25' x 25' (6' x 25' treated)
 Row width/# per plot : 15"/3
 Soil type..... : clay loam
 OM (%)..... : 1.9
 pH : 6.3
 Planting date : 5-17-12
 Harvest date..... : 10-11-12
 Crop/Variety : Soybean/Pioneer 95Y31
 Uniform std. treatment..... : Roundup Powermax @ 22 fl oz/A on 5-20-12

Application type : PRE A
 Date applied (mm-dd-yy) : 5-18-12
 Time (hh:mm-hh:mm) : 10:15-11:50am
 Incorporation equipment..... : N/A
 Incorporation depth..... : N/A
 Air/Soil temperature (F) : 87/80
 Wind (mph/direction) : 2/E
 Relative humidity (%) : 44
 Soil/Leaf surface moist..... : dry/N/A
 Crop stage/height..... : V4-V5/10-12"
 Sprayer type/mph..... : CO₂bkpk/3.0
 Nozzle type/size..... : FF/TTI11002
 Boom ht/#noz/spacing (in) : 15"/4/18"
 GPA/psi (at nozzle) : 15/28
 Applied by : Bauerle

Weed species : population per ft²/height/# leaves
 N/A :

Rainfall (in.)
 0-24 hr/1-3 days..... : 0.00/0.00
 4-7 days/2nd week..... : 0.00/0.21
 3rd week/4th week..... : 4.48/1.95

Comments:

Insecticide treatments consisted of 1 lb/A Orthene + 3 oz/A Belt applied on 8-23-12 and 0.5 lb/A Orthene + 6 oz/A Discipline applied on 9-5-12.

Harvest aid was applied at R7 growth stage on 9-22-12; 16 oz/A Gramoxone + 1.5 oz/A Aim + 0.25% v/v Induce in 15 GPA.

School of Plant, Environmental, and Soil Sciences

Residual Activity of Herbicides For Use in DTS Soybean

Trial ID: 12GN01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type										W Weed	W Weed	W Weed
Pest Code										ECHCG	IPOLA	SIDSP
Pest Scientific Name										Echinochloa cr>	Ipomoea lac>	Sida spinosa
Pest Name										Common barnyar>	Pitted morn>	Prickly sida
Rating Date										Jun/20/2012	Jun/20/2012	Jun/20/2012
Rating Type										Control	Control	Control
Rating Unit										%	%	%
Trt	Treatment	Form	Rate	Rate	Other	Other	Growth	Appl				
No.	Name	Conc		Unit	Rate	Rate Unit	Stage	Code				
1	Clarity	4	0.5	lb ae/a	16	oz/a	PRE	A	47b	48def	53d	
2	Clarity	4	1	lb ae/a	32	oz/a	PRE	A	40b	55b-f	62bcd	
3	Valor SX	51	0.064	lb ai/a	2	oz/a	PRE	A	78a	78abc	92a	
4	Valor SX	51	0.064	lb ai/a	2	oz/a	PRE	A	78a	73a-d	95a	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A				
5	Valor XLT	40.3	0.0756	lb ai/a	3	oz/a	PRE	A	78a	82ab	92a	
6	Valor XLT	40.3	0.0756	lb ai/a	3	oz/a	PRE	A	82a	80ab	95a	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A				
7	Prefix	5.29	1.32	lb ai/a	2	pt/a	PRE	A	90a	43f	58cd	
8	Prefix	5.29	1.32	lb ai/a	2	pt/a	PRE	A	88a	65a-f	87a	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A				
9	Dual Magnum	7.62	0.95	lb ai/a	1	pt/a	PRE	A	87a	45ef	72a-d	
10	Dual Magnum	7.62	0.95	lb ai/a	1	pt/a	PRE	A	85a	60b-f	83ab	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A				
11	Warrant	3	1.13	lb ai/a	3	pt/a	PRE	A	83a	58b-f	73a-d	
12	Warrant	3	1.13	lb ai/a	3	pt/a	PRE	A	85a	65a-f	82ab	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A				
13	Warrant	3	1.13	lb ai/a	3	pt/a	PRE	A	88a	90a	93a	
	Valor SX	51	0.064	lb ai/a	2	oz/a	PRE	A				

School of Plant, Environmental, and Soil Sciences

Residual Activity of Herbicides For Use in DTS Soybean

Trial ID: 12GN01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type										W Weed	W Weed	W Weed
Pest Code										ECHCG	IPOLA	SIDSP
Pest Scientific Name										Echinochloa cr>	Ipomoea lac>	Sida spinosa
Pest Name										Common barnyar>	Pitted morn>	Prickly sida
Rating Date										Jun/20/2012	Jun/20/2012	Jun/20/2012
Rating Type										Control	Control	Control
Rating Unit										%	%	%
Trt	Treatment	Form	Rate	Rate	Other	Other	Growth	Appl				
No.	Name	Conc		Unit	Rate	Rate Unit	Stage	Code				
14	Warrant	3	1.13	lb ai/a	3	pt/a	PRE	A	88a	80ab	93a	
	Valor SX	51	0.064	lb ai/a	2	oz/a	PRE	A				
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A				
15	Authority MTZ	45	0.31	lb ai/a	11	oz/a	PRE	A	73a	73a-d	85a	
16	Authority MTZ	45	0.31	lb ai/a	11	oz/a	PRE	A	77a	75abc	92a	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A				
17	Fierce	76	0.142	lb ai/a	3	oz/a	PRE	A	89a	83ab	93a	
18	Fierce	76	0.142	lb ai/a	3	oz/a	PRE	A	90a	78abc	95a	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A				
19	Metribuzin	75	0.334	lb ai/a	7.1	oz/a	PRE	A	50b	55b-f	75a-d	
20	Metribuzin	75	0.334	lb ai/a	7.1	oz/a	PRE	A	52b	60b-f	78abc	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A				
21	Zidua	85	0.12	lb ai/a	2.26	oz/a	PRE	A	90a	43f	57cd	
22	Zidua	85	0.12	lb ai/a	2.26	oz/a	PRE	A	95a	73a-d	88a	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A				
23	Canopy DF	75	0.28	lb ai/a	6	oz/a	PRE	A	47b	52c-f	55d	
24	Canopy DF	75	0.28	lb ai/a	6	oz/a	PRE	A	53b	70a-e	85a	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A				
25	Nontreated								0c	0g	0e	

School of Plant, Environmental, and Soil Sciences

Residual Activity of Herbicides For Use in DTS Soybean

Trial ID: 12GN01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed	W Weed
Pest Code	ECHCG	IPOLA	SIDSP
Pest Scientific Name	Echinochloa cr>	Ipomoea lac>	Sida spinosa
Pest Name	Common barnyar>	Pitted morn>	Prickly sida
Rating Date	Jun/20/2012	Jun/20/2012	Jun/20/2012
Rating Type	Control	Control	Control
Rating Unit	%	%	%
LSD (P=.05)	13.6	15.2	14.4
Standard Deviation	8.2	9.2	8.8
CV	11.33	14.56	11.32
Bartlett's X2	13.206	15.881	28.769
P(Bartlett's X2)	0.927	0.776	0.092
Skewness	-1.423*	-1.1217*	-1.8288*
Kurtosis	1.8438*	1.9314*	3.8353*
Replicate F	0.044	2.864	1.988
Replicate Prob(F)	0.9566	0.0669	0.1481
Treatment F	22.618	12.587	17.688
Treatment Prob(F)	0.0001	0.0001	0.0001

School of Plant, Environmental, and Soil Sciences

Residual Activity of Herbicides For Use in DTS Soybean

Trial ID: 12GN01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type									W Weed	W Weed
Pest Code									ECHCG	IPOSS
Pest Scientific Name									Echinochloa cr>	Ipomoea sp.
Pest Name									Common barnyar>	Morning glory
Crop Code								GLXMA		
BBCH Scale								BSOY		
Crop Scientific Name								Glycine max		
Crop Name								Soybean		
Rating Date								Jun/20/2012	Jun/29/2012	Jun/29/2012
Rating Type								Injury	Control	Control
Rating Unit								%	%	%
Trt No.	Treatment Name	Form	Rate	Other Rate	Other Rate	Growth Stage	Appl Code			
1	Clarity	4	0.5	lb ae/a	16 oz/a	PRE	A	70b	95a	78ab
2	Clarity	4	1	lb ae/a	32 oz/a	PRE	A	82ab	95a	82ab
3	Valor SX	51	0.064	lb ai/a	2 oz/a	PRE	A	0c	95a	92a
4	Valor SX	51	0.064	lb ai/a	2 oz/a	PRE	A	78ab	95a	80ab
	Clarity	4	1	lb ae/a	32 oz/a	PRE	A			
5	Valor XLT	40.3	0.0756	lb ai/a	3 oz/a	PRE	A	0c	95a	87ab
6	Valor XLT	40.3	0.0756	lb ai/a	3 oz/a	PRE	A	83a	93a	73ab
	Clarity	4	1	lb ae/a	32 oz/a	PRE	A			
7	Prefix	5.29	1.32	lb ai/a	2 pt/a	PRE	A	0c	95a	67ab
8	Prefix	5.29	1.32	lb ai/a	2 pt/a	PRE	A	75ab	95a	77ab
	Clarity	4	1	lb ae/a	32 oz/a	PRE	A			
9	Dual Magnum	7.62	0.95	lb ai/a	1 pt/a	PRE	A	0c	95a	62b
10	Dual Magnum	7.62	0.95	lb ai/a	1 pt/a	PRE	A	82ab	95a	67ab
	Clarity	4	1	lb ae/a	32 oz/a	PRE	A			
11	Warrant	3	1.13	lb ai/a	3 pt/a	PRE	A	0c	95a	83ab
12	Warrant	3	1.13	lb ai/a	3 pt/a	PRE	A	80ab	95a	77ab
	Clarity	4	1	lb ae/a	32 oz/a	PRE	A			
13	Warrant	3	1.13	lb ai/a	3 pt/a	PRE	A	0c	95a	87ab
	Valor SX	51	0.064	lb ai/a	2 oz/a	PRE	A			

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Residual Activity of Herbicides For Use in DTS Soybean

Trial ID: 12GN01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type									W Weed	W Weed
Pest Code									ECHCG	IPOSS
Pest Scientific Name									Echinochloa cr>	Ipomoea sp.
Pest Name									Common barnyar>	Morning glory
Crop Code								GLXMA		
BBCH Scale								BSOY		
Crop Scientific Name								Glycine max		
Crop Name								Soybean		
Rating Date								Jun/20/2012	Jun/29/2012	Jun/29/2012
Rating Type								Injury	Control	Control
Rating Unit								%	%	%
Trt No.	Treatment Name	Form Conc	Rate Rate	Other Unit	Other Rate	Growth Unit	Appl Stage	Code		
14	Warrant	3	1.13	lb ai/a	3	pt/a	PRE	A	78ab	95a
	Valor SX	51	0.064	lb ai/a	2	oz/a	PRE	A		78ab
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A		
15	Authority MTZ45	0.31	lb ai/a	11	oz/a	PRE	A	0c	95a	93a
16	Authority MTZ45	0.31	lb ai/a	11	oz/a	PRE	A	77ab	95a	85ab
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A		
17	Fierce	76	0.142	lb ai/a	3	oz/a	PRE	A	0c	95a
18	Fierce	76	0.142	lb ai/a	3	oz/a	PRE	A	82ab	95a
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A		78ab
19	Metribuzin	75	0.334	lb ai/a	7.1	oz/a	PRE	A	0c	95a
20	Metribuzin	75	0.334	lb ai/a	7.1	oz/a	PRE	A	87a	93a
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A		77ab
21	Zidua	85	0.12	lb ai/a	2.26	oz/a	PRE	A	0c	95a
22	Zidua	85	0.12	lb ai/a	2.26	oz/a	PRE	A	80ab	95a
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A		75ab
23	Canopy DF	75	0.28	lb ai/a	6	oz/a	PRE	A	0c	95a
24	Canopy DF	75	0.28	lb ai/a	6	oz/a	PRE	A	80ab	95a
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A		77ab
25	Nontreated								0c	95a
										72ab

School of Plant, Environmental, and Soil Sciences

Residual Activity of Herbicides For Use in DTS Soybean

Trial ID: 12GN01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type		W Weed	W Weed
Pest Code		ECHCG	IPOSS
Pest Scientific Name		Echinochloa cr>	Ipomoea sp.
Pest Name		Common barnyar>	Morning glory
Crop Code	GLXMA		
BBCH Scale	BSOY		
Crop Scientific Name	Glycine max		
Crop Name	Soybean		
Rating Date	Jun/20/2012	Jun/29/2012	Jun/29/2012
Rating Type	Injury	Control	Control
Rating Unit	%	%	%
LSD (P=.05)	7.2	1.4	15.5
Standard Deviation	4.4	0.8	9.4
CV	10.53	0.87	11.94
Bartlett's X2	7.134	0.0	19.87
P(Bartlett's X2)	0.788	.	0.704
Skewness	-0.0414	-5.9966*	-0.5959*
Kurtosis	-1.999*	34.8893*	-0.0859
Replicate F	1.972	0.490	0.561
Replicate Prob(F)	0.1503	0.6158	0.5741
Treatment F	261.665	0.939	2.215
Treatment Prob(F)	0.0001	0.5546	0.0095

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Residual Activity of Herbicides For Use in DTS Soybean

Trial ID: 12GN01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed
Pest Code	SIDSP	ECHCG
Pest Scientific Name	Sida spinosa	Echinochloa cr>
Pest Name	Prickly sida	Common barnyar>
Crop Code	GLXMA	
BBCH Scale	BSOY	
Crop Scientific Name	Glycine max	
Crop Name	Soybean	
Rating Date	Jun/29/2012	Jun/29/2012
Rating Type	Control	Injury
Rating Unit	%	%

Trt No.	Treatment Name	Form Conc	Rate Rate	Other Unit	Other Rate	Growth Unit	Appl Stage	Code			
1	Clarity	4	0.5	lb ae/a	16	oz/a	PRE	A	95a	60ab	96a
2	Clarity	4	1	lb ae/a	32	oz/a	PRE	A	95a	68ab	92a
3	Valor SX	51	0.064	lb ai/a	2	oz/a	PRE	A	95a	0c	95a
4	Valor SX	51	0.064	lb ai/a	2	oz/a	PRE	A	95a	67ab	92a
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A			
5	Valor XLT	40.3	0.0756	lb ai/a	3	oz/a	PRE	A	95a	0c	93a
6	Valor XLT	40.3	0.0756	lb ai/a	3	oz/a	PRE	A	95a	67ab	96a
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A			
7	Prefix	5.29	1.32	lb ai/a	2	pt/a	PRE	A	95a	0c	96a
8	Prefix	5.29	1.32	lb ai/a	2	pt/a	PRE	A	95a	67ab	95a
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A			
9	Dual Magnum	7.62	0.95	lb ai/a	1	pt/a	PRE	A	95a	0c	91a
10	Dual Magnum	7.62	0.95	lb ai/a	1	pt/a	PRE	A	83a	68ab	95a
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A			
11	Warrant	3	1.13	lb ai/a	3	pt/a	PRE	A	95a	0c	94a
12	Warrant	3	1.13	lb ai/a	3	pt/a	PRE	A	95a	68ab	95a
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A			
13	Warrant	3	1.13	lb ai/a	3	pt/a	PRE	A	95a	0c	96a
	Valor SX	51	0.064	lb ai/a	2	oz/a	PRE	A			

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Residual Activity of Herbicides For Use in DTS Soybean

Trial ID: 12GN01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type									W Weed			W Weed
Pest Code									SIDSP			ECHCG
Pest Scientific Name									Sida spinosa			Echinochloa cr>
Pest Name									Prickly sida			Common barnyar>
Crop Code										GLXMA		
BBCH Scale										BSOY		
Crop Scientific Name										Glycine max		
Crop Name										Soybean		
Rating Date									Jun/29/2012	Jun/29/2012	Jul/13/2012	
Rating Type									Control	Injury	Control	
Rating Unit									%	%	%	
Trt No.	Treatment Name	Form Conc	Rate Rate	Unit	Other Rate	Other Rate	Growth Unit	Appl Stage	Code			
14	Warrant	3	1.13	lb ai/a	3	pt/a	PRE	A	95a	63ab	95a	
	Valor SX	51	0.064	lb ai/a	2	oz/a	PRE	A				
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A				
15	Authority MTZ45	0.31	lb ai/a	11	oz/a		PRE	A	95a	0c	95a	
16	Authority MTZ45	0.31	lb ai/a	11	oz/a		PRE	A	95a	62ab	93a	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A				
17	Fierce	76	0.142	lb ai/a	3	oz/a	PRE	A	95a	0c	92a	
18	Fierce	76	0.142	lb ai/a	3	oz/a	PRE	A	95a	62ab	95a	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A				
19	Metribuzin	75	0.334	lb ai/a	7.1	oz/a	PRE	A	95a	0c	92a	
20	Metribuzin	75	0.334	lb ai/a	7.1	oz/a	PRE	A	95a	75a	88a	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A				
21	Zidua	85	0.12	lb ai/a	2.26	oz/a	PRE	A	95a	0c	95a	
22	Zidua	85	0.12	lb ai/a	2.26	oz/a	PRE	A	95a	62ab	95a	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A				
23	Canopy DF	75	0.28	lb ai/a	6	oz/a	PRE	A	95a	0c	95a	
24	Canopy DF	75	0.28	lb ai/a	6	oz/a	PRE	A	95a	47b	82a	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A				
25	Nontreated								88a	0c	83a	

School of Plant, Environmental, and Soil Sciences

Residual Activity of Herbicides For Use in DTS Soybean

Trial ID: 12GN01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed	
Pest Code	SIDSP	ECHCG	
Pest Scientific Name	Sida spinosa	Echinochloa cr>	
Pest Name	Prickly sida	Common barnyar>	
Crop Code		GLXMA	
BBCH Scale		BSOY	
Crop Scientific Name		Glycine max	
Crop Name		Soybean	
Rating Date	Jun/29/2012	Jun/29/2012	Jul/13/2012
Rating Type	Control	Injury	Control
Rating Unit	%	%	%
LSD (P=.05)	6.9	13.9	7.9
Standard Deviation	4.2	8.4	4.8
CV	4.47	25.23	5.14
Bartlett's X2	5.149	18.043	25.158
P(Bartlett's X2)	0.023*	0.081	0.033*
Skewness	-7.5129*	0.0427	-2.7377*
Kurtosis	60.0644*	-1.9542*	8.0422*
Replicate F	0.859	0.183	2.046
Replicate Prob(F)	0.4301	0.8332	0.1404
Treatment F	1.231	46.268	1.817
Treatment Prob(F)	0.2642	0.0001	0.0391

School of Plant, Environmental, and Soil Sciences

Residual Activity of Herbicides For Use in DTS Soybean

Trial ID: 12GN01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed		
Pest Code	IPOSS	SIDSP		
Pest Scientific Name	Ipomoea sp.	Sida spinosa		
Pest Name	Morning glory	Prickly sida		
Crop Code			GLXMA	GLXMA
BBCH Scale			BSOY	BSOY
Crop Scientific Name			Glycine max	Glycine max
Crop Name			Soybean	Soybean
Rating Date	Jul/13/2012	Jul/13/2012	Jul/13/2012	Oct/11/2012
Rating Type	Control	Control	Injury	Moisture
Rating Unit	%	%	%	%

Trt No.	Treatment Name	Form Conc	Rate Rate	Other Rate	Other Rate	Growth Unit	Appl Stage	Code				
1	Clarity	4	0.5	lb ae/a	16 oz/a	PRE	A	86a	96a	45b	12.6a	
2	Clarity	4	1	lb ae/a	32 oz/a	PRE	A	73a	95a	58ab	12.0a	
3	Valor SX	51	0.064	lb ai/a	2 oz/a	PRE	A	85a	95a	0c	12.5a	
4	Valor SX	51	0.064	lb ai/a	2 oz/a	PRE	A	72a	93a	53ab	11.9a	
	Clarity	4	1	lb ae/a	32 oz/a	PRE	A					
5	Valor XLT	40.3	0.0756	lb ai/a	3 oz/a	PRE	A	83a	95a	0c	12.0a	
6	Valor XLT	40.3	0.0756	lb ai/a	3 oz/a	PRE	A	78a	93a	57ab	12.5a	
	Clarity	4	1	lb ae/a	32 oz/a	PRE	A					
7	Prefix	5.29	1.32	lb ai/a	2 pt/a	PRE	A	88a	96a	0c	12.4a	
8	Prefix	5.29	1.32	lb ai/a	2 pt/a	PRE	A	65a	95a	60a	12.3a	
	Clarity	4	1	lb ae/a	32 oz/a	PRE	A					
9	Dual Magnum	7.62	0.95	lb ai/a	1 pt/a	PRE	A	73a	89a	0c	11.8a	
10	Dual Magnum	7.62	0.95	lb ai/a	1 pt/a	PRE	A	72a	95a	57ab	11.8a	
	Clarity	4	1	lb ae/a	32 oz/a	PRE	A					
11	Warrant	3	1.13	lb ai/a	3 pt/a	PRE	A	83a	95a	0c	12.3a	
12	Warrant	3	1.13	lb ai/a	3 pt/a	PRE	A	75a	95a	57ab	11.7a	
	Clarity	4	1	lb ae/a	32 oz/a	PRE	A					
13	Warrant	3	1.13	lb ai/a	3 pt/a	PRE	A	88a	95a	0c	12.4a	
	Valor SX	51	0.064	lb ai/a	2 oz/a	PRE	A					

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Residual Activity of Herbicides For Use in DTS Soybean

Trial ID: 12GN01JG
Location: Ben Hur Research Farm
Investigator: Dr. James L. Griffin
Study Director: Matthew Bauerle

Pest Type									W Weed	W Weed			
Pest Code									IPOSS	SIDSP			
Pest Scientific Name									Ipomoea sp.	Sida spinosa			
Pest Name									Morning glory	Prickly sida			
Crop Code											GLXMA	GLXMA	
BBCH Scale											BSOY	BSOY	
Crop Scientific Name											Glycine max	Glycine max	
Crop Name											Soybean	Soybean	
Rating Date									Jul/13/2012	Jul/13/2012	Jul/13/2012	Oct/11/2012	
Rating Type									Control	Control	Injury	Moisture	
Rating Unit									%	%	%	%	
Trt	Treatment	Form	Rate	Other	Other	Growth	Appl						
No.	Name	Conc	Rate	Unit	Rate	Unit	Stage	Code					
14	Warrant	3	1.13	lb ai/a	3	pt/a	PRE	A	77a	95a	53ab	11.4a	
	Valor SX	51	0.064	lb ai/a	2	oz/a	PRE	A					
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A					
15	Authority	MTZ45	0.31	lb ai/a	11	oz/a	PRE	A	92a	95a	0c	11.8a	
16	Authority	MTZ45	0.31	lb ai/a	11	oz/a	PRE	A	87a	95a	48ab	12.1a	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A					
17	Fierce	76	0.142	lb ai/a	3	oz/a	PRE	A	90a	95a	0c	11.5a	
18	Fierce	76	0.142	lb ai/a	3	oz/a	PRE	A	73a	95a	57ab	11.7a	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A					
19	Metribuzin	75	0.334	lb ai/a	7.1	oz/a	PRE	A	87a	93a	0c	12.2a	
20	Metribuzin	75	0.334	lb ai/a	7.1	oz/a	PRE	A	67a	95a	55ab	11.8a	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A					
21	Zidua	85	0.12	lb ai/a	2.26	oz/a	PRE	A	87a	95a	0c	11.9a	
22	Zidua	85	0.12	lb ai/a	2.26	oz/a	PRE	A	78a	95a	53ab	12.1a	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A					
23	Canopy	DF	75	0.28	lb ai/a	6	oz/a	PRE	A	80a	95a	0c	12.2a
24	Canopy	DF	75	0.28	lb ai/a	6	oz/a	PRE	A	60a	90a	57ab	14.0a
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A					
25	Nontreated								73a	93a	0c	12.0a	

School of Plant, Environmental, and Soil Sciences

Residual Activity of Herbicides For Use in DTS Soybean

Trial ID: 12GN01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed		
Pest Code	IPOSS	SIDSP		
Pest Scientific Name	Ipomoea sp.	Sida spinosa		
Pest Name	Morning glory	Prickly sida		
Crop Code			GLXMA	GLXMA
BBCH Scale			BSOY	BSOY
Crop Scientific Name			Glycine max	Glycine max
Crop Name			Soybean	Soybean
Rating Date	Jul/13/2012	Jul/13/2012	Jul/13/2012	Oct/11/2012
Rating Type	Control	Control	Injury	Moisture
Rating Unit	%	%	%	%
LSD (P=.05)	17.9	5.4	8.1	1.17
Standard Deviation	10.9	3.2	4.9	0.71
CV	13.79	3.44	17.37	5.85
Bartlett's X2	15.801	15.437	5.4	51.632
P(Bartlett's X2)	0.826	0.031*	0.863	0.001*
Skewness	-0.409	-4.7407*	0.0203	3.7137*
Kurtosis	-0.6855	25.3829*	-1.9295*	24.6135*
Replicate F	2.946	1.740	5.093	0.111
Replicate Prob(F)	0.0621	0.1865	0.0099	0.8953
Treatment F	1.818	0.723	96.591	1.537
Treatment Prob(F)	0.0390	0.8034	0.0001	0.1018

School of Plant, Environmental, and Soil Sciences

Residual Activity of Herbicides For Use in DTS Soybean

Trial ID: 12GN01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Crop Code	GLXMA	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean
Rating Date	Oct/11/2012	Oct/11/2012	Oct/11/2012
Rating Type	Test Weight	Yield	Yield
Rating Unit	lb/bu	kg	bu/A

Trt No.	Treatment Name	Form Conc	Rate Rate	Other Rate	Other Unit	Growth Stage	Appl Code				
1	Clarity	4	0.5	lb ae/a	16	oz/a	PRE	A	54.1a	3.233ab	41.6ab
2	Clarity	4	1	lb ae/a	32	oz/a	PRE	A	54.6a	2.588ab	33.5ab
3	Valor SX	51	0.064	lb ai/a	2	oz/a	PRE	A	54.3a	3.504ab	45.1ab
4	Valor SX Clarity	51 4	0.064 1	lb ai/a lb ae/a	2 32	oz/a oz/a	PRE PRE	A A	54.5a	2.396ab	31.0ab
5	Valor XLT	40.3	0.0756	lb ai/a	3	oz/a	PRE	A	54.0a	3.041ab	39.3ab
6	Valor XLT Clarity	40.3 4	0.0756 1	lb ai/a lb ae/a	3 32	oz/a oz/a	PRE PRE	A A	53.2a	2.808ab	36.2ab
7	Prefix	5.29	1.32	lb ai/a	2	pt/a	PRE	A	54.4a	3.433ab	44.3ab
8	Prefix Clarity	5.29 4	1.32 1	lb ai/a lb ae/a	2 32	pt/a oz/a	PRE PRE	A A	54.6a	2.844ab	36.7ab
9	Dual Magnum	7.62	0.95	lb ai/a	1	pt/a	PRE	A	54.2a	2.898ab	37.6ab
10	Dual Magnum Clarity	7.62 4	0.95 1	lb ai/a lb ae/a	1 32	pt/a oz/a	PRE PRE	A A	54.1a	3.005ab	39.0ab
11	Warrant	3	1.13	lb ai/a	3	pt/a	PRE	A	54.6a	3.116ab	40.2ab
12	Warrant Clarity	3 4	1.13 1	lb ai/a lb ae/a	3 32	pt/a oz/a	PRE PRE	A A	54.1a	2.643ab	34.3ab
13	Warrant Valor SX	3 51	1.13 0.064	lb ai/a lb ai/a	3 2	pt/a oz/a	PRE PRE	A A	54.2a	3.651ab	47.1ab

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Residual Activity of Herbicides For Use in DTS Soybean

Trial ID: 12GN01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Crop Code	GLXMA	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean
Rating Date	Oct/11/2012	Oct/11/2012	Oct/11/2012
Rating Type	Test Weight	Yield	Yield
Rating Unit	lb/bu	kg	bu/A

Trt No.	Treatment Name	Form Conc	Rate Rate	Unit Unit	Other Rate	Other Unit	Growth Stage	Appl Code			
14	Warrant	3	1.13	lb ai/a	3	pt/a	PRE	A	54.3a	2.743ab	35.7ab
	Valor SX	51	0.064	lb ai/a	2	oz/a	PRE	A			
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A			
15	Authority MTZ45	0.31	lb ai/a	11	oz/a	PRE	A	54.1a	3.538ab	45.9ab	
16	Authority MTZ45	0.31	lb ai/a	11	oz/a	PRE	A	54.3a	3.522ab	45.6ab	
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A			
17	Fierce	76	0.142	lb ai/a	3	oz/a	PRE	A	54.0a	3.330ab	43.4ab
18	Fierce	76	0.142	lb ai/a	3	oz/a	PRE	A	54.6a	2.521ab	32.8ab
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A			
19	Metribuzin	75	0.334	lb ai/a	7.1	oz/a	PRE	A	54.3a	3.903a	50.4a
20	Metribuzin	75	0.334	lb ai/a	7.1	oz/a	PRE	A	54.5a	2.437ab	31.6ab
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A			
21	Zidua	85	0.12	lb ai/a	2.26	oz/a	PRE	A	54.2a	3.419ab	44.3ab
22	Zidua	85	0.12	lb ai/a	2.26	oz/a	PRE	A	54.5a	2.501ab	32.3ab
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A			
23	Canopy DF	75	0.28	lb ai/a	6	oz/a	PRE	A	54.6a	3.233ab	41.8ab
24	Canopy DF	75	0.28	lb ai/a	6	oz/a	PRE	A	53.5a	2.146b	27.3b
	Clarity	4	1	lb ae/a	32	oz/a	PRE	A			
25	Nontreated								54.5a	3.597ab	46.6ab

School of Plant, Environmental, and Soil Sciences

Residual Activity of Herbicides For Use in DTS Soybean

Trial ID: 12GN01JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Crop Code	GLXMA	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean
Rating Date	Oct/11/2012	Oct/11/2012	Oct/11/2012
Rating Type	Test Weight	Yield	Yield
Rating Unit	lb/bu	kg	bu/A
LSD (P=.05)	1.18	0.9393	12.08
Standard Deviation	0.71	0.5692	7.32
CV	1.32	18.71	18.61
Bartlett's X2	44.868	31.488	32.698
P(Bartlett's X2)	0.006*	0.14	0.111
Skewness	-2.2377*	-0.6775*	-0.7076*
Kurtosis	9.0992*	-0.2048	-0.1473
Replicate F	0.852	8.427	8.547
Replicate Prob(F)	0.4330	0.0007	0.0007
Treatment F	0.666	2.040	2.062
Treatment Prob(F)	0.8584	0.0178	0.0164

Weed Control Programs in Sorghum Containing INZEN Z Trait
LSU AgCenter
School of Plant, Environmental, and Soil Sciences

Experiment number : 12GN02JG
Location..... : Ben Hur Research Farm
Experimental design : Randomized Complete Block
Number of reps : 3
Plot size : 10' x 25'
Row width/# per plot : N/A
Soil type..... : clay loam
OM (%)..... : 1.9
pH : 6.3
Planting date : N/A
Harvest date : N/A
Crop/Variety : N/A
Uniform std. treatment..... : N/A

Application type	PRE A	POST B
Date applied (mm-dd-yy)	5-18-12	6-20-12
Time (hh:mm-hh:mm)	2:30-2:45pm	12:15-12:45pm
Incorporation equipment.....	N/A	N/A
Incorporation depth.....	N/A	N/A
Air/Soil temperature (F)	87/85	84/81
Wind (mph/direction)	5/NE	8/SE
Relative humidity (%)	33	56
Soil/Leaf surface moist.....	dry/N/A	moist/dry
Crop stage/height.....	N/A	N/A
Sprayer type/mpg.....	CO ₂ bkpk/3.0	CO ₂ bkpk/3.0
Nozzle type/size.....	FF/TTI11002	FF/TTI11002
Boom ht/#noz/spacing (in)	15"/4/18"	15"/4/18"
GPA/psi (at nozzle)	15/28	15/28
Applied by	Hardwick	Bauerle

Weed species	population per ft ² /height/# leaves	
ECHCG	N/A	20-50/2-6"/3-7
IPOLA	N/A	3-5/2-5" (12-18" runners)/5-15
SIDSP	N/A	2-5/1-3"/1-3

Rainfall (in.)		
0-24 hr/1-3 days.....	0.00/0.00	0.00/0.00
4-7 days/2nd week.....	0.00/0.21	0.31/0.25
3rd week/4th week.....	4.48/1.95	2.78/1.45

Comments:

School of Plant, Environmental, and Soil Sciences

Weed Control Programs in Sorghum Containing INZEN Z Trait

Trial ID: 12GN02JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed	W Weed
Pest Code	ECHCG	IPOLA	SIDSP
Pest Scientific Name	Echinochloa cr>	Ipomoea lacuno>	Sida spinosa
Pest Name	Common barnyar>	Pitted morning>	Prickly sida
Rating Date	Jun/20/2012	Jun/20/2012	Jun/20/2012
Rating Type	Control	Control	Control
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	Nicosulfuron	75	0.67	oz/a	0.5	oz ai/a	POST	B	0c	0c	0b
	Rimsulfuron	25	1	oz/a	0.25	oz ai/a	POST	B			
	Atrazine	90	1.11	lb/a	1	lb ai/a	POST	B			
	COC		1	% v/v	1	% v/v	POST	B			
	Quest	50	0.25	% v/v	0.25	% v/v	POST	B			
2	Nicosulfuron	75	0.67	oz/a	0.5	oz ai/a	POST	B	0c	0c	0b
	Rimsulfuron	25	1	oz/a	0.25	oz ai/a	POST	B			
	Huskie	2.08	13	fl oz/a	0.211	lb ai/a	POST	B			
	Atrazine	90	0.556	lb/a	0.5	lb ai/a	POST	B			
	NIS		0.25	% v/v	0.25	% v/v	POST	B			
	Quest	50	0.25	% v/v	0.25	% v/v	POST	B			
3	Nicosulfuron	75	10.7	oz/a	0.5	lb ai/a	POST	B	0c	0c	0b
	Rimsulfuron	25	16	oz/a	0.25	lb ai/a	POST	B			
	Clarity	4	8	fl oz/a	0.25	lb ai/a	POST	B			
	COC		1	% v/v	1	% v/v	POST	B			
	Quest	50	0.25	% v/v	0.25	% v/v	POST	B			
4	Atrazine	90	1.11	lb/a	1	lb ai/a	PRE	A	91ab	93a	95a
	Nicosulfuron	75	0.67	oz/a	0.5	oz ai/a	POST	B			
	Rimsulfuron	25	1	oz/a	0.25	oz ai/a	POST	B			
	Huskie	2.08	13	fl oz/a	0.211	lb ai/a	POST	B			
	Atrazine	90	0.556	lb/a	0.5	lb ai/a	POST	B			
	NIS		0.25	% v/v	0.25	% v/v	POST	B			
	Quest	50	0.25	% v/v	0.25	% v/v	POST	B			
5	Atrazine	90	1.11	lb/a	1	lb ai/a	PRE	A	93ab	87a	95a
	Nicosulfuron	75	0.67	oz/a	0.5	oz ai/a	POST	B			
	Rimsulfuron	25	1	oz/a	0.25	oz ai/a	POST	B			
	Clarity	4	8	fl oz/a	0.25	lb ai/a	POST	B			
	COC		1	% v/v	1	% v/v	POST	B			
	Quest	50	0.25	% v/v	0.25	% v/v	POST	B			

School of Plant, Environmental, and Soil Sciences

Weed Control Programs in Sorghum Containing INZEN Z Trait

Trial ID: 12GN02JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed	W Weed
Pest Code	ECHCG	IPOLA	SIDSP
Pest Scientific Name	Echinochloa cr>	Ipomoea lacuno>	Sida spinosa
Pest Name	Common barnyar>	Pitted morning>	Prickly sida
Rating Date	Jun/20/2012	Jun/20/2012	Jun/20/2012
Rating Type	Control	Control	Control
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
6	Cinch ATZ	5.5	1.6	pt/a	1.1	lb ai/a	PRE	A	88b	60b	93a
	Nicosulfuron	75	0.67	oz/a	0.5	oz ai/a	POST	B			
	Rimsulfuron	25	1	oz/a	0.25	oz ai/a	POST	B			
	Huskie	2.08	13	fl oz/a	0.211	lb ai/a	POST	B			
	Atrazine	90	0.556	lb/a	0.5	lb ai/a	POST	B			
	NIS		0.25	% v/v	0.25	% v/v	POST	B			
	Quest	50	0.25	% v/v	0.25	% v/v	POST	B			
7	Cinch ATZ	5.5	1.6	pt/a	1.1	lb ai/a	PRE	A	95a	55b	95a
	Nicosulfuron	75	0.67	oz/a	0.5	oz ai/a	POST	B			
	Rimsulfuron	25	1	oz/a	0.25	oz ai/a	POST	B			
	Clarity	4	8	fl oz/a	0.25	lb ai/a	POST	B			
	COC		1	% v/v	1	% v/v	POST	B			
	Quest	50	0.25	% v/v	0.25	% v/v	POST	B			
8	Cinch ATZ	5.5	3.2	pt/a	2.2	lb ai/a	PRE	A	93ab	65b	93a
9	Nontreated								0c	0c	0b

LSD (P=.05)	4.9	8.8	2.2
Standard Deviation	2.8	5.1	1.3
CV	5.57	12.73	2.43
Bartlett's X2	2.499	6.944	0.0
P(Bartlett's X2)	0.476	0.139	.
Skewness	-0.2231	0.0656	-0.2347
Kurtosis	-2.0932*	-1.793*	-2.1039*
Replicate F	2.162	1.274	2.286
Replicate Prob(F)	0.1476	0.3066	0.1339
Treatment F	871.652	182.860	4577.286
Treatment Prob(F)	0.0001	0.0001	0.0001

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Weed Control Programs in Sorghum Containing INZEN Z Trait

Trial ID: 12GN02JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed	W Weed
Pest Code	ECHCG	IPOLA	SIDSP
Pest Scientific Name	Echinochloa cr>	Ipomoea lacuno>	Sida spinosa
Pest Name	Common barnyar>	Pitted morning>	Prickly sida
Rating Date	Jul/5/2012	Jul/5/2012	Jul/5/2012
Rating Type	Control	Control	Control
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate Rate	Unit	Other Rate	Other Rate	Growth Stage	Appl Code			
1	Nicosulfuron	75	0.67	oz/a	0.5	oz ai/a	POST B	65c		93a	98a
	Rimsulfuron	25	1	oz/a	0.25	oz ai/a	POST B				
	Atrazine	90	1.11	lb/a	1	lb ai/a	POST B				
	COC		1	% v/v	1	% v/v	POST B				
	Quest	50	0.25	% v/v	0.25	% v/v	POST B				
2	Nicosulfuron	75	0.67	oz/a	0.5	oz ai/a	POST B	68c		95a	100a
	Rimsulfuron	25	1	oz/a	0.25	oz ai/a	POST B				
	Huskie	2.08	13	fl oz/a	0.211	lb ai/a	POST B				
	Atrazine	90	0.556	lb/a	0.5	lb ai/a	POST B				
	NIS		0.25	% v/v	0.25	% v/v	POST B				
	Quest	50	0.25	% v/v	0.25	% v/v	POST B				
3	Nicosulfuron	75	10.7	oz/a	0.5	lb ai/a	POST B	98a		93a	95a
	Rimsulfuron	25	16	oz/a	0.25	lb ai/a	POST B				
	Clarity	4	8	fl oz/a	0.25	lb ai/a	POST B				
	COC		1	% v/v	1	% v/v	POST B				
	Quest	50	0.25	% v/v	0.25	% v/v	POST B				
4	Atrazine	90	1.11	lb/a	1	lb ai/a	PRE A	92ab		95a	100a
	Nicosulfuron	75	0.67	oz/a	0.5	oz ai/a	POST B				
	Rimsulfuron	25	1	oz/a	0.25	oz ai/a	POST B				
	Huskie	2.08	13	fl oz/a	0.211	lb ai/a	POST B				
	Atrazine	90	0.556	lb/a	0.5	lb ai/a	POST B				
	NIS		0.25	% v/v	0.25	% v/v	POST B				
	Quest	50	0.25	% v/v	0.25	% v/v	POST B				
5	Atrazine	90	1.11	lb/a	1	lb ai/a	PRE A	98a		88ab	100a
	Nicosulfuron	75	0.67	oz/a	0.5	oz ai/a	POST B				
	Rimsulfuron	25	1	oz/a	0.25	oz ai/a	POST B				
	Clarity	4	8	fl oz/a	0.25	lb ai/a	POST B				
	COC		1	% v/v	1	% v/v	POST B				
	Quest	50	0.25	% v/v	0.25	% v/v	POST B				

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Weed Control Programs in Sorghum Containing INZEN Z Trait

Trial ID: 12GN02JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed	W Weed
Pest Code	ECHCG	IPOLA	SIDSP
Pest Scientific Name	Echinochloa cr>	Ipomoea lacuno>	Sida spinosa
Pest Name	Common barnyar>	Pitted morning>	Prickly sida
Rating Date	Jul/5/2012	Jul/5/2012	Jul/5/2012
Rating Type	Control	Control	Control
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate Rate	Unit	Other Rate	Other Rate	Unit	Growth Stage	Appl Code			
6	Cinch ATZ	5.5	1.6	pt/a	1.1	lb ai/a		PRE	A	87b	93a	100a
	Nicosulfuron	75	0.67	oz/a	0.5	oz ai/a		POST	B			
	Rimsulfuron	25	1	oz/a	0.25	oz ai/a		POST	B			
	Huskie	2.08	13	fl oz/a	0.211	lb ai/a		POST	B			
	Atrazine	90	0.556	lb/a	0.5	lb ai/a		POST	B			
	NIS		0.25	% v/v	0.25	% v/v		POST	B			
	Quest	50	0.25	% v/v	0.25	% v/v		POST	B			
7	Cinch ATZ	5.5	1.6	pt/a	1.1	lb ai/a		PRE	A	87b	85b	95a
	Nicosulfuron	75	0.67	oz/a	0.5	oz ai/a		POST	B			
	Rimsulfuron	25	1	oz/a	0.25	oz ai/a		POST	B			
	Clarity	4	8	fl oz/a	0.25	lb ai/a		POST	B			
	COC		1	% v/v	1	% v/v		POST	B			
	Quest	50	0.25	% v/v	0.25	% v/v		POST	B			
8	Cinch ATZ	5.5	3.2	pt/a	2.2	lb ai/a		PRE	A	90ab	53c	97a
9	Nontreated									0d	0d	0b
LSD (P=.05)										6.8	5.7	5.5
Standard Deviation										4.0	3.3	3.2
CV										5.19	4.28	3.64
Bartlett's X2										4.873	2.251	3.208
P(Bartlett's X2)										0.432	0.895	0.361
Skewness										-1.9233*	-1.9261*	-2.5606*
Kurtosis										2.8975*	2.5806*	5.0476*
Replicate F										1.600	2.611	3.586
Replicate Prob(F)										0.2326	0.1044	0.0517
Treatment F										182.933	277.221	320.069
Treatment Prob(F)										0.0001	0.0001	0.0001

School of Plant, Environmental, and Soil Sciences

Weed Control Programs in Sorghum Containing INZEN Z Trait

Trial ID: 12GN02JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed	W Weed
Pest Code	ECHCG	IPOLA	SIDSP
Pest Scientific Name	Echinochloa cr>	Ipomoea lacuno>	Sida spinosa
Pest Name	Common barnyar>	Pitted morning>	Prickly sida
Rating Date	Jul/18/2012	Jul/18/2012	Jul/18/2012
Rating Type	Control	Control	Control
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate Rate	Unit Unit	Other Rate	Other Rate	Growth Stage	Appl Code			
1	Nicosulfuron	75	0.67	oz/a	0.5	oz ai/a	POST	B	35c	88a	95a
	Rimsulfuron	25	1	oz/a	0.25	oz ai/a	POST	B			
	Atrazine	90	1.11	lb/a	1	lb ai/a	POST	B			
	COC		1	% v/v	1	% v/v	POST	B			
	Quest	50	0.25	% v/v	0.25	% v/v	POST	B			
2	Nicosulfuron	75	0.67	oz/a	0.5	oz ai/a	POST	B	32c	83ab	92a
	Rimsulfuron	25	1	oz/a	0.25	oz ai/a	POST	B			
	Huskie	2.08	13	fl oz/a	0.211	lb ai/a	POST	B			
	Atrazine	90	0.556	lb/a	0.5	lb ai/a	POST	B			
	NIS		0.25	% v/v	0.25	% v/v	POST	B			
	Quest	50	0.25	% v/v	0.25	% v/v	POST	B			
3	Nicosulfuron	75	10.7	oz/a	0.5	lb ai/a	POST	B	95a	48c	92a
	Rimsulfuron	25	16	oz/a	0.25	lb ai/a	POST	B			
	Clarity	4	8	fl oz/a	0.25	lb ai/a	POST	B			
	COC		1	% v/v	1	% v/v	POST	B			
	Quest	50	0.25	% v/v	0.25	% v/v	POST	B			
4	Atrazine	90	1.11	lb/a	1	lb ai/a	PRE	A	65b	65bc	95a
	Nicosulfuron	75	0.67	oz/a	0.5	oz ai/a	POST	B			
	Rimsulfuron	25	1	oz/a	0.25	oz ai/a	POST	B			
	Huskie	2.08	13	fl oz/a	0.211	lb ai/a	POST	B			
	Atrazine	90	0.556	lb/a	0.5	lb ai/a	POST	B			
	NIS		0.25	% v/v	0.25	% v/v	POST	B			
	Quest	50	0.25	% v/v	0.25	% v/v	POST	B			
5	Atrazine	90	1.11	lb/a	1	lb ai/a	PRE	A	94a	60c	92a
	Nicosulfuron	75	0.67	oz/a	0.5	oz ai/a	POST	B			
	Rimsulfuron	25	1	oz/a	0.25	oz ai/a	POST	B			
	Clarity	4	8	fl oz/a	0.25	lb ai/a	POST	B			
	COC		1	% v/v	1	% v/v	POST	B			
	Quest	50	0.25	% v/v	0.25	% v/v	POST	B			

School of Plant, Environmental, and Soil Sciences

Weed Control Programs in Sorghum Containing INZEN Z Trait

Trial ID: 12GN02JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed	W Weed
Pest Code	ECHCG	IPOLA	SIDSP
Pest Scientific Name	Echinochloa cr>	Ipomoea lacuno>	Sida spinosa
Pest Name	Common barnyar>	Pitted morning>	Prickly sida
Rating Date	Jul/18/2012	Jul/18/2012	Jul/18/2012
Rating Type	Control	Control	Control
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate Rate	Unit Unit	Other Rate	Other Rate	Growth Stage	Appl Code			
6	Cinch ATZ	5.5	1.6	pt/a	1.1	lb ai/a	PRE	A	73ab	67bc	95a
	Nicosulfuron	75	0.67	oz/a	0.5	oz ai/a	POST	B			
	Rimsulfuron	25	1	oz/a	0.25	oz ai/a	POST	B			
	Huskie	2.08	13	fl oz/a	0.211	lb ai/a	POST	B			
	Atrazine	90	0.556	lb/a	0.5	lb ai/a	POST	B			
	NIS		0.25	% v/v	0.25	% v/v	POST	B			
	Quest	50	0.25	% v/v	0.25	% v/v	POST	B			
7	Cinch ATZ	5.5	1.6	pt/a	1.1	lb ai/a	PRE	A	57b	57c	90a
	Nicosulfuron	75	0.67	oz/a	0.5	oz ai/a	POST	B			
	Rimsulfuron	25	1	oz/a	0.25	oz ai/a	POST	B			
	Clarity	4	8	fl oz/a	0.25	lb ai/a	POST	B			
	COC		1	% v/v	1	% v/v	POST	B			
	Quest	50	0.25	% v/v	0.25	% v/v	POST	B			
8	Cinch ATZ	5.5	3.2	pt/a	2.2	lb ai/a	PRE	A	67b	43c	80b
9	Nontreated								0d	0d	0c
LSD (P=.05)									18.4	15.9	6.8
Standard Deviation									10.6	9.2	3.9
CV									18.46	16.11	4.82
Bartlett's X2									7.065	6.259	0.961
P(Bartlett's X2)									0.315	0.51	0.916
Skewness									-0.4255	-0.8414	-2.466*
Kurtosis									-0.8441	0.7128	4.7207*
Replicate F									2.637	1.236	0.182
Replicate Prob(F)									0.1024	0.3169	0.8355
Treatment F									25.383	23.920	185.864
Treatment Prob(F)									0.0001	0.0001	0.0001

Callisto Layby Test
LSU AgCenter
School of Plant, Environmental, and Soil Sciences

Experiment number : 12GN03JG
Location : Ben Hur Research Farm
Experimental design : Randomized Complete Block
Number of reps : 4
Plot size : 10' x 25'
Row width/# per plot : N/A
Soil type : clay loam
OM (%) : 1.9
pH : 6.3
Planting date : N/A
Harvest date : N/A
Crop/Variety : N/A
Uniform std. treatment : N/A

Application type : PRE A
Date applied (mm-dd-yy) : 5-18-12
Time (hh:mm-hh:mm) : 2:45-3:00pm
Incorporation equipment : N/A
Incorporation depth : N/A
Air/Soil temperature (F) : 87/85
Wind (mph/direction) : 5/NE
Relative humidity (%) : 33
Soil/Leaf surface moist : dry/N/A
Crop stage/height : N/A
Sprayer type/mph : CO₂bkpk/3.0
Nozzle type/size : FF/TTI11002
Boom ht/#noz/spacing (in) : 15"/4/18"
GPA/psi (at nozzle) : 15/28
Applied by : Hardwick

Weed species : population per ft²/height/# leaves
N/A :

Rainfall (in.)
0-24 hr/1-3 days : 0.00/0.00
4-7 days/2nd week : 0.00/0.21
3rd week/4th week : 4.48/1.95

Comments:

School of Plant, Environmental, and Soil Sciences

Callisto Layby Test

Trial ID: 12GN03JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed	W Weed
Pest Code	ECHCG	IPOLA	SIDSP
Pest Scientific Name	Echinochloa cr>	Ipomoea lacuno>	Sida spinosa
Pest Name	Common barnyar>	Pitted morning>	Prickly sida
Rating Date	Jun/20/2012	Jun/20/2012	Jun/20/2012
Rating Type	Control	Control	Control
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	Callisto	4	3	fl oz/a	0.094	lb ai/a	PRE	A	39c	44c	58c
2	Callisto	4	7.7	fl oz/a	0.24	lb ai/a	PRE	A	53b	64b	88b
3	Sencor	75	2	lb/a	1.5	lb ai/a	PRE	A	96a	90a	98a
4	Prowl	3.3	3	qt/a	2.48	lb ai/a	PRE	A	95a	83a	96a
	Atrazine	4	2	qt/a	2	lb ai/a	PRE	A			
5	Callisto	4	3	fl oz/a	0.094	lb ai/a	PRE	A	96a	95a	99a
	Atrazine	4	2	qt/a	2	lb ai/a	PRE	A			
6	Nontreated								0d	0d	0d

LSD (P=.05)	10.9	10.3	6.6
Standard Deviation	7.2	6.9	4.4
CV	11.44	10.96	6.05
Bartlett's X2	9.254	9.449	9.646
P(Bartlett's X2)	0.026*	0.051	0.047*
Skewness	-0.626	-0.8664	-1.3422*
Kurtosis	-1.1109	-0.4899	0.3223
Replicate F	0.381	0.563	1.214
Replicate Prob(F)	0.7680	0.6476	0.3387
Treatment F	121.100	110.589	312.000
Treatment Prob(F)	0.0001	0.0001	0.0001

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Callisto Layby Test

Trial ID: 12GN03JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed	W Weed
Pest Code	ECHCG	IPOLA	SIDSP
Pest Scientific Name	Echinochloa cr>	Ipomoea lacuno>	Sida spinosa
Pest Name	Common barnyar>	Pitted morning>	Prickly sida
Rating Date	Jun/29/2012	Jun/29/2012	Jun/29/2012
Rating Type	Control	Control	Control
Rating Unit	%	%	%

Trt No.	Treatment Name	Form	Rate	Other Rate	Other Rate	Growth Stage	Appl Code			
1	Callisto	4	3	fl oz/a	0.094 lb ai/a	PRE	A	33b	45c	93b
2	Callisto	4	7.7	fl oz/a	0.24 lb ai/a	PRE	A	34b	63b	95ab
3	Sencor	75	2	lb/a	1.5 lb ai/a	PRE	A	95a	86a	95ab
4	Prowl	3.3	3	qt/a	2.48 lb ai/a	PRE	A	95a	74ab	96a
	Atrazine	4	2	qt/a	2 lb ai/a	PRE	A			
5	Callisto	4	3	fl oz/a	0.094 lb ai/a	PRE	A	95a	90a	95ab
	Atrazine	4	2	qt/a	2 lb ai/a	PRE	A			
6	Nontreated							0c	0d	0c

LSD (P=.05)	12.0	14.3	2.2
Standard Deviation	8.0	9.5	1.5
CV	13.65	15.92	1.86
Bartlett's X2	6.029	5.172	0.06
P(Bartlett's X2)	0.049*	0.27	0.806
Skewness	-0.3222	-0.8748	-1.8999*
Kurtosis	-1.7024	-0.3827	1.7701
Replicate F	1.496	0.417	1.774
Replicate Prob(F)	0.2560	0.7436	0.1952
Treatment F	109.152	49.852	2782.936
Treatment Prob(F)	0.0001	0.0001	0.0001

School of Plant, Environmental, and Soil Sciences

Callisto Layby Test

Trial ID: 12GN03JG
 Location: Ben Hur Research Farm
 Investigator: Dr. James L. Griffin
 Study Director: Matthew Bauerle

Pest Type	W Weed	W Weed	W Weed
Pest Code	ECHCG	IPOLA	SIDSP
Pest Scientific Name	Echinochloa cr>	Ipomoea lacuno>	Sida spinosa
Pest Name	Common barnyar>	Pitted morning>	Prickly sida
Rating Date	Jul/13/2012	Jul/13/2012	Jul/13/2012
Rating Type	Control	Control	Control
Rating Unit	%	%	%

Trt No.	Treatment Name	Form Conc	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	Callisto	4	3	fl oz/a	0.094 lb ai/a	PRE	A	33b	56a	76a
2	Callisto	4	7.7	fl oz/a	0.24 lb ai/a	PRE	A	24b	78a	91a
3	Sencor	75	2	lb/a	1.5 lb ai/a	PRE	A	81a	63a	90a
4	Prowl	3.3	3	qt/a	2.48 lb ai/a	PRE	A	85a	65a	93a
	Atrazine	4	2	qt/a	2 lb ai/a	PRE	A			
5	Callisto	4	3	fl oz/a	0.094 lb ai/a	PRE	A	85a	74a	93a
	Atrazine	4	2	qt/a	2 lb ai/a	PRE	A			
6	Nontreated							0c	0b	0b

LSD (P=.05)	12.9	18.5	14.4
Standard Deviation	8.5	12.3	9.5
CV	16.65	22.0	12.94
Bartlett's X2	2.751	4.975	16.26
P(Bartlett's X2)	0.60	0.29	0.003*
Skewness	-0.1658	-1.1204*	-1.6528*
Kurtosis	-1.6277	0.091	1.0332
Replicate F	1.469	1.381	0.808
Replicate Prob(F)	0.2628	0.2868	0.5089
Treatment F	75.985	21.409	58.994
Treatment Prob(F)	0.0001	0.0001	0.0001