

2001

Comparison of glyphosate formulations

Micheal D. K. Owen

Iowa State University, mdownen@iastate.edu

Robert G. Hartzler

Iowa State University, hartzler@iastate.edu

Brent A. Pringnitz

Iowa State University, bpring@iastate.edu

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Comparison of glyphosate formulations

Disciplines

Agricultural Science | Agriculture | Agronomy and Crop Sciences | Weed Science

Iowa State University

Comparison of glyphosate formulations

Trial ID: KS-glyphosate-01 Study Dir.: Pringnitz
 Location: Investigator: Owen/Hartzler/Pringnitz

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	AMBEL	RAGWEED, COMMON	AMBROSIA ELATIOR L.
2.	AMATU	WATERHEMP, TALL	AMARANTHUS TUBERCULATOS (MOQ.) J.SAUER
3.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
4.	SOLPT	NIGHTSHADE, EASTERN BLACK	SOLANUM PTYCANTHUM DUNAL
5.	SETFA	FOXTAIL, GIANT	SETARIA FABERI HERRM.

Crop 1: GLXMA SOYBEAN **Variety:** Asgrow AG2101
Planting Date: May-15-01
Rate: 190000 S/A **Depth:** 1.75 in
Row Spacing: 30 in
Soil Temperature: 67 F **Soil Moisture:** moist

SITE AND DESIGN

Plot Width, Unit: 10 FT **Plot Length, Unit:** 30 FT **Reps:** 3
Study Design: RANDOMIZED COMPLETE BLOCK

MAINTENANCE

Field Prep./Maintenance: 2 pass field cultivator, Spring 2001

APPLICATION DESCRIPTION

	A
Application Date:	Jul-06-01
Time of Day:	9am
Application Method:	spray
Application Timing:	POST
Applic. Placement:	broadcast
Air Temp., Unit:	71 F
% Relative Humidity:	57
Wind Velocity, Unit:	10
Dew Presence (Y/N):	n
Soil Temp., Unit:	70 F
Soil Moisture:	dry
% Cloud Cover:	90

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	GLXMA
Height, Unit:	16 inch

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WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	AMBEL 12-14
Stage Scale:	inches
Density, Unit:	3 FT2
Weed 2 Code, Stage:	AMATU 6-12
Stage Scale:	inches
Density, Unit:	7 FT2
Weed 3 Code, Stage:	CHEAL 4-6
Stage Scale:	inches
Density, Unit:	3 FT2
Weed 4 Code, Stage:	SOLPT 2
Stage Scale:	inches
Density, Unit:	1 FT2
Weed 5 Code, Stage:	SETFA 12
Stage Scale:	inches
Density, Unit:	34 FT2

APPLICATION EQUIPMENT

	A
Appl. Equipment:	handboom
Operating Pressure:	37
Nozzle Type:	flat-fan
Nozzle Size:	TT11003
Nozzle Spacing, Unit:	20 in
Boom Length, Unit:	10 ft
Boom Height, Unit:	15 in
Ground Speed, Unit:	3 mph
Carrier:	water
Spray Volume, Unit:	20 gpa
Propellant:	CO2

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Weed Code					SETFA	AMBAR	POLPY	ABUTH	AMATU	CHEAL
Rating Data Type					control	control	control	control	control	control
Rating Unit					%	%	%	%	%	%
Rating Date					Aug-03-01	Aug-03-01	Aug-03-01	Aug-03-01	Aug-03-01	Aug-03-01
Trt No.	Treatment Name	Rate	Grow Stg	Appl Code						
1	Glyphomax Plus AMS	24 FL OZ/A 8.5 LB/100 GAL	post post	A A	94.7 a	91.7 a	91.3 a	96.3 a	94.7 a	88.3 a
2	Glyphomax Plus AMS	16 FL OZ/A 8.5 LB/100 GAL	post post	A A	94.7 a	80.0 b	85.0 a	91.3 a	95.0 a	85.0 a
3	Roundup Ultra Max AMS	19 FL OZ/A 8.5 LB/100 GAL	post post	A A	97.7 a	83.3 ab	88.3 a	94.7 a	97.7 a	89.7 a
4	Roundup Ultra Max AMS	13 FL OZ/A 8.5 LB/100 GAL	post post	A A	99.0 a	86.7 ab	86.7 a	99.0 a	96.0 a	90.0 a
5	Touchdown IQ AMS	24 FL OZ/A 8.5 LB/100 GAL	post post	A A	99.0 a	86.7 ab	86.7 a	96.3 a	96.0 a	90.7 a
6	Touchdown IQ AMS	16 FL OZ/A 8.5 LB/100 GAL	post post	A A	96.0 a	87.2 ab	80.7 a	94.5 a	95.8 a	88.3 a
7	untreated check									
LSD (P=.05)					4.80	6.85	12.30	6.62	6.96	12.21
Standard Deviation					2.60	3.71	6.66	3.59	3.77	6.61
CV					2.68	4.32	7.7	3.76	3.93	7.46

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)