The Ohio State University

Competitive Soybean Systems Comparison

Title No. 2: 2020-01-B7-08
Trial ID: 20SOYYLD2 Location: Western Branch F-6 Trial Year: 2020
Protocol ID: HP20USAJU2 Investigator: Dr. Mark M. Loux
Project ID: LOCAL_PROJ Study Director: Pollard, Justin
Sponsor Contact:

General Trial Information
Study Director: Pollard, Justin
Investigator: Dr. Mark M. Loux

Trial Status: E established
ARM Trial Created On: Jun-2-2020
Initiation Date: Jun-1-2020

Trial Location
Address (Location): 7721 South Charleston Pike
City: South Charleston **Country:** USA United States
State/Prov.: Ohio
Postal Code: 45368

Latitude of LL Corner °: 39.85601 N
Longitude of LL Corner °: -83.67167 W
Altitude of LL Corner: 830.00 FT

Directions:
Latitude

LL 39.85601 -83.67176
UL 39.85656 -83.67155
UR 39.85654 -83.67101
LR 39.85598 -83.67107

Conducted Under GLP: No
Conducted Under GEP: Yes

Keywords: PHYTOTOX EFFICACY YIELD

Contacts
Study Director: Pollard, Justin

Investigator: Dr. Mark M. Loux

Crop Description

Crop 1: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Entry Date: May-14-2020 **Stage Scale:** BBCH
Variety: AG30XF0 **Maturity Group:** 3.0
Attributes: DICAMBA, GLYPHOSATE, GLUFOSINATE TOL
Seed Lot No: WN9SLG11 **Seed Source:** Asgrow
% Germination: 90

Seed Size: 2600 S/LB
Seed Treatment Products: Acceleron plus Ilevo
Planting Date: Jun-1-2020 **Planting Rate:** 160000 S/A
Depth: 1 IN
Rows per Plot: 8 **Planting Method:** PLANTD planted
Row Spacing: 15 IN **Planting Equipment:** FE field equipment
Seed Bed: MEDIUM medium
Soil Temperature: 70 F **Soil Moisture:** NORMAL normal, adequate
Emergence Date: Jun-12-2020
Harvest Date: Oct-9-2020 **Harvest Equipment:** Kincaid 8XP
Moisture Meter: Harvest Master **Harvested Width:** 6.25 FT
% Standard Moisture: 13.0 **Harvested Length:** 200 FT
Weighing Equipment: Harvest Master HM800

Crop 2: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Entry Date: May-28-2020 **Stage Scale:** BBCH
Variety: AG36XF0 **Maturity Group:** 3.6
Attributes: DICAMBA, GLYPHOSATE, GLUFOSINATE TOL
Seed Lot No: MC9SAV11 **Seed Source:** Asgrow
% Germination: 90

Seed Size: 2280 S/LB
Seed Treatment Products: Acceleron plus Ilevo
Planting Date: Jun-1-2020 **Planting Rate:** 160000 S/A

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Sponsor Contact:

Depth: 1 IN
Rows per Plot: 8
Row Spacing: 15 IN

Soil Temperature: 70 F
Emergence Date: Jun-12-2020
Harvest Date: Oct-9-2020

Planting Method: PLANTD planted
Planting Equipment: FE field equipment
Seed Bed: MEDIUM medium
Soil Moisture: NORMAL normal, adequate

Crop 3: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Entry Date: May-28-2020
Variety: AG38XF0
Attributes: DICAMBA, GLYPHOSATE, GLUFOSINATE TOL
Seed Lot No: MC9SEY12
% Germination: 90

Stage Scale: BBCH
Maturity Group: 3.8

Seed Source: Asgrow

Seed Size: 2500 S/LB
Seed Treatment Products: Acceleron plus Ilevo
Planting Rate: 160000 S/A

Planting Date: Jun-1-2020
Depth: 1 IN
Rows per Plot: 8
Row Spacing: 15 IN

Soil Temperature: 70 F
Emergence Date: Jun-12-2020
Harvest Date: Oct-9-2020

Planting Method: PLANTD planted
Planting Equipment: FE field equipment
Seed Bed: MEDIUM medium
Soil Moisture: NORMAL normal, adequate

Crop 4: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Entry Date: May-28-2020
Variety: CZ 3250GTLL
Attributes: HPPD, GLYPHOSATE, GLUFOSINATE TOL
Seed Lot No: XS0TGV045R
% Germination: 90

Stage Scale: BBCH
Maturity Group: 3.2

Seed Source: Credenze

Seed Size: 2850 S/LB
Seed Treatment Products: Poncho Votivo, Ilevo
Planting Rate: 160000 S/A

Planting Date: Jun-1-2020
Depth: 1 IN
Rows per Plot: 8
Row Spacing: 15 IN

Soil Temperature: 70 F
Emergence Date: Jun-12-2020
Harvest Date: Oct-9-2020

Planting Method: PLANTD planted
Planting Equipment: FE field equipment
Seed Bed: MEDIUM medium
Soil Moisture: NORMAL normal, adequate

Crop 5: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Entry Date: May-28-2020
Variety: 3442FP
Attributes: HPPD, GLYPHOSATE, GLUFOSINATE TOL
Seed Lot No: F2012703
% Germination: 90

Stage Scale: BBCH
Maturity Group: 3.4

Seed Source: Becks

Seed Size: 2572 S/LB
Seed Treatment Products: Escalate
Planting Rate: 160000 S/A

Planting Date: Jun-1-2020
Depth: 1 IN
Rows per Plot: 8
Row Spacing: 15 IN

Soil Temperature: 70 F
Emergence Date: Jun-12-2020
Harvest Date: Oct-9-2020

Planting Method: PLANTD planted
Planting Equipment: FE field equipment
Seed Bed: MEDIUM medium
Soil Moisture: NORMAL normal, adequate

Crop 6: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Entry Date: May-28-2020
Variety: 35GB20
Attributes: HPPD, GLYPHOSATE, GLUFOSINATE TOL
Seed Lot No: SWI932
% Germination: 90

Stage Scale: BBCH
Maturity Group: 3.5

Seed Source: Stine

Seed Size: 2871 S/LB
Seed Treatment Products: None
Planting Rate: 160000 S/A

Planting Date: Jun-1-2020
Depth: 1 IN
Rows per Plot: 8
Row Spacing: 15 IN

Soil Temperature: 70 F

Planting Method: PLANTD planted
Planting Equipment: FE field equipment
Seed Bed: MEDIUM medium
Soil Moisture: NORMAL normal, adequate

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Emergence Date: Jun-12-2020
Harvest Date: Oct-9-2020

Crop 7: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Entry Date: May-28-2020
Variety: 30T99E
Attributes: 2,4-D Choline, Glyphosate, Glufosinate Tol
Seed Lot No: B3WOO13049-00-0597
% Germination: 90
Stage Scale: BBCH
Maturity Group: 3.0
Seed Source: Pioneer
Seed Size: 2476 S/LB
Seed Treatment Products: Lumige, Lumisena, Ilevo
Planting Rate: 160000 S/A
Planting Date: Jun-1-2020
Depth: 1 IN
Rows per Plot: 8
Row Spacing: 15 IN
Planting Method: PLANTD planted
Planting Equipment: FE field equipment
Seed Bed: MEDIUM medium
Soil Moisture: NORMAL normal, adequate
Soil Temperature: 70 F
Emergence Date: Jun-12-2020
Harvest Date: Oct-9-2020

Crop 8: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Entry Date: May-28-2020
Variety: 35EB32
Attributes: 2,4-D Choline, Glyphosate, Glufosinate Tol
Seed Lot No: SWI916
% Germination: 90
Stage Scale: BBCH
Maturity Group: 3.5
Seed Source: Stine
Seed Size: 2600 S/LB
Seed Treatment Products: None
Planting Rate: 160000 S/A
Planting Date: Jun-1-2020
Depth: 1 IN
Rows per Plot: 8
Row Spacing: 15 IN
Planting Method: PLANTD planted
Planting Equipment: FE field equipment
Seed Bed: MEDIUM medium
Soil Moisture: NORMAL normal, adequate
Soil Temperature: 70 F
Emergence Date: Jun-12-2020
Harvest Date: Oct-9-2020

Crop 9: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Entry Date: May-28-2020
Variety: 3714ES
Attributes: 2,4-D Choline, Glyphosate, Glufosinate Tol
Seed Lot No: 36E3WF19
% Germination: 90
Stage Scale: BBCH
Maturity Group: 3.7
Seed Source: Genesis
Seed Size: 2850 S/LB
Seed Treatment Products: Swamp Master XT
Planting Rate: 160000 S/A
Planting Date: Jun-1-2020
Depth: 1 IN
Rows per Plot: 8
Row Spacing: 15 IN
Planting Method: PLANTD planted
Planting Equipment: FE field equipment
Seed Bed: MEDIUM medium
Soil Moisture: NORMAL normal, adequate
Soil Temperature: 70 F
Emergence Date: Jun-12-2020
Harvest Date: Oct-9-2020

Harvested Width: 6.25 FT
Harvested Length: 200 FT

% Standard Moisture: 13.0

Pest Description

Pest 1 Type: W **Code:** SETFA Setaria faberi
Common Name: foxtail, giant **Entry Date:** Jun-29-2020

Pest 2 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: ragweed, giant **Entry Date:** Jun-29-2020

Pest 3 Type: W **Code:** AMARE Amaranthus retroflexus
Common Name: pigweed, redroot **Entry Date:** Jun-29-2020

Pest 4 Type: W **Code:** CHEAL Chenopodium album
Common Name: lambsquarters, common **Entry Date:** Jun-29-2020

Pest 5 Type: W **Code:** HIBTR Hibiscus trionum
Common Name: mallow, Venice **Entry Date:** Jun-29-2020

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Site and Design

Treated Plot Width: 10 FT **Site Type:** RESPLO research plot
Treated Plot Length: 250 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 2500 FT2 **Treatments:** 9 **Tillage Type:** CONTIL conventional-till
Replications: 1 **Study Design:** NONRAN Non-Randomized

No.	Previous Crop	Year
1.	SOYBEAN	2019

Soil Description

Description Name: F-6
% Sand: 37 **% OM:** 1.7 **Texture:** L loam
% Silt: 49 **pH:** 6.1 **Soil Name:** Strawn-Crosby
% Clay: 15 **CEC:** 10.3 **Fert. Level:** G good
Analyzed By:
Spectrum Analytic, Washington Court House, OH 11-27-2017

Application Description

	A	B	C
Application Date	Jun-1-2020	Jun-29-2020	Jul-8-2020
Appl. Start Time	2:30 PM	8:30 AM	8:30 AM
Appl. Stop Time	3:00 PM	9:00 AM	8:45 AM
Application Method	SPRAY	SPRAY	SPRAY
Application Timing	PREPRE	POSPOS	LAPOCR
Application Placement	BROSOI	BROFOL	BROFOL
Applied By	Dobbels	Dobbels	Kimmet
Appl. Entry Date	Jun-2-2020	Jun-29-2020	Jul-9-2020
Air Temperature Start, Stop	71 71 F	73 73 F	74 74 F
% Relative Humidity Start, Stop	28 28	93 93	89 89
Wind Velocity+Dir. Start	5 MPH SSW	1 MPH ENE	4 MPH ESE
Wind Velocity+Dir. Stop	5 MPH SSW	1 MPH ENE	4 MPH ESE
Wind Velocity+Dir. Max	5 MPH SSW	1 MPH ENE	4 MPH ESE
Wet Leaves (Y/N)	N no	Y yes	N no
Soil Temperature	71 F	69 F	72 F
Soil Moisture	NORMAL	DRY	MOIST
Soil Surface Condition	MEDIUM	MEDIUM	MEDIUM
% Cloud Cover	50	3	0
Next Moisture Occurred On	Jun-4-2020	Jul-1-2020	Jul-10-2020
Time to Next Moisture	3 DAY	2 DAY	2 DAY
Moisture 6 Hours after Appl.	0 IN	0 IN	0 IN
Moisture 1 Week after Appl.	0.01 IN	0.02 IN	0.49 IN

Protocol Application Directions:

Site Considerations:

Select site that is uniform for the region with moderate to high weed pressure.
Trial is designed to be a strip trial.
It may be beneficial to leave buffer areas between the 3 different trait blocks.
Trial is stewarded and must comply with appropriate GST-OPS.

Seeding Considerations:

For germplasm 1, TRT 1-3: select three locally proven XtendFlex soybean varities.
For germplasm 2, TRT 4-6: select three locally proven LLGT27 varities.
For germplasm 3, TRT 7-9: select three locally proven E3 varities.
Use local standards for seeding rates.
Stewarded seeds will be delivered in double containments to indicated SRRs addresses and it should be stored in locked rooms until planting.

Application Code Description:

Start clean with tillage or if no-till/minimum tillage add glyphosate for burndown in your PREPRE (A) application.
A=PREPRE: Apply at planting
B=POSPOS: V3-V5 soybean or 4 inch weeds, whichever comes first

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C=LAPOCR: as needed but prior to R1
All applications to be made at 15 GPA.
Any treatments including dicamba must use TTI nozzles. All other treatements should be applied using nozzles recommended by the herbicide label.
Spray all rows of plot, yield center 2 rows.

Assessment Codes:
PE12AD1 = When rating soybean injury, please give an overall % injury rating **(%CI)**.
EE22AD3 = Please rate % weed control for all broadleaf and grass weeds present (w/ somewhat uniform population) by individual weed species using BAYER code for each species, DO NOT lump weeds together under one code **(%WC)**.
HM41NA3 = Please provide yield data already corrected for 13% moisture.

Rating Timings:
PE12AD1 = 14 DAT "B" application = B1 Assessment Code
PE12AD1 = 14 DAT "C" application = C1 Assessment Code
EE22AD3 = Just prior to "C" application = B2 Assessment Code
EE22AD3 = At Canopy or August 1st whichever comes first = E1 Assessment Code
EE22AD3 = At Harvest = H1 Assessment Code
HM41NA3 = Harvest Yield = H2 Assessment Code

Photos:
Please take photos of 1st replication in treatment order (or representative rep) just prior to "C" application.
Please take photos of 1st replication in treatment order (or representative rep) at E1 (Canopy) Assessment Code Timing.

Fate of Plots:
XtendFlex is still under stewardship requirements, so harvest should follow compliance guidelines.
Harvested stewarded grains CANNOT LEAVE PLOT. It must be dumped back into stewarded area and managed accordingly for volunteer control.
YIELD is required.

Additional Comments:
Follow all state and federal application requirments.
DO NOT DEVIATE FROM THE TREATMENT LIST OR ALTER RATES.

Reporting Dates:
In season data due September 1st
Final data due November 15th

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Crop Stage At Each Application

	A		B		C	
Crop 1 Code, BBCH Scale	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY
Days after Emergence	-11		17		26	
Stage Scale Used	BBCH		BBCH		BBCH	
Stage Majority, Percent			13	100	16	90
Stage Minimum, Percent					16	90
Stage Maximum, Percent					51	10
Height Average			7 IN		11 IN	
Height Minimum, Maximum			6 9		10 12	
Crop 2 Code, BBCH Scale	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY
Days after Emergence	-11		17		26	
Stage Scale Used	BBCH		BBCH		BBCH	
Crop 3 Code, BBCH Scale	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY
Days after Emergence	-11		17		26	
Stage Scale Used	BBCH		BBCH		BBCH	
Crop 4 Code, BBCH Scale	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY
Days after Emergence	-11		17		26	
Stage Scale Used	BBCH		BBCH		BBCH	
Crop 5 Code, BBCH Scale	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY
Days after Emergence	-11		17		26	
Stage Scale Used	BBCH		BBCH		BBCH	
Crop 6 Code, BBCH Scale	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY
Days after Emergence	-11		17		26	
Stage Scale Used	BBCH		BBCH		BBCH	
Crop 7 Code, BBCH Scale	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY
Days after Emergence	-11		17		26	
Stage Scale Used	BBCH		BBCH		BBCH	
Crop 8 Code, BBCH Scale	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY
Days after Emergence	-11		17		26	
Stage Scale Used	BBCH		BBCH		BBCH	
Crop 9 Code, BBCH Scale	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY
Days after Emergence	-11		17		26	
Stage Scale Used	BBCH		BBCH		BBCH	

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Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale	SETFA W	SETFA W	SETFA W
Stage Majority, Percent		18 80	
Stage Minimum, Percent		12	
Stage Maximum, Percent		19	
Height Average		7 IN	
Height Minimum, Maximum		1 18	
Density Average		275 PLA/m2	
Density Min, Max		95 321	
Pest 2 Code, Type, Scale	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent		19 90	19 100
Stage Minimum, Percent		15 10	
Stage Maximum, Percent		19 90	
Height Average		8 IN	8 IN
Height Minimum, Maximum		2 18	6 8
Density Average		5 PLA/m2	2 PLA/m2
Density Min, Max		1 7	0 5
Pest 3 Code, Type, Scale	AMARE W	AMARE W	AMARE W
Stage Majority, Percent		16 80	
Stage Minimum, Percent		13	
Stage Maximum, Percent		17	
Height Average		4 IN	
Height Minimum, Maximum		3 5	
Density Average		6 PLA/m2	
Density Min, Max		3 9	
Pest 4 Code, Type, Scale	CHEAL W	CHEAL W	CHEAL W
Stage Majority, Percent		19 90	
Stage Minimum, Percent		14	
Stage Maximum, Percent		19	
Height Average		7 IN	
Height Minimum, Maximum		2 14	
Density Average		4 PLA/m2	
Density Min, Max		2 6	
Pest 5 Code, Type, Scale	HIBTR W	HIBTR W	HIBTR W
Stage Majority, Percent		16 80	13 90
Stage Minimum, Percent		12 10	12 10
Stage Maximum, Percent		18 10	13 90
Height Average		6 IN	3 IN
Height Minimum, Maximum		2 7	2 3
Density Average		3 PLA/m2	0.33 PLA/m2
Density Min, Max		0 8	0 1

Application Equipment

	A	B	C
Appl. Equipment	10' TTI	10' TTI	10' AIXR
Equipment Type	BACCAI	BACCAI	BACCAI
Operation Pressure	44 PSI	44 PSI	44 PSI
Nozzle Type	TTI	TTI	AIXR
Nozzle Size	110015	110015	110015
Nozzle Spacing	18 IN	18 IN	18 IN
Boom Length	10 FT	10 FT	10 FT
Boom Height	20 IN	20 IN	20 IN
Ground Speed	3 KPH	3 MPH	3 MPH
Carrier	WATER	WATER	WATER
Application Amount	15 GAL/AC	15 GAL/AC	15 GAL/AC
Mix Size	3 GAL	3 GAL	2 L
Propellant	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N)	Y yes	Y yes	

Context	Date	By	Notes
STATUS	Mar-26-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	May-14-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'E' when Initiation Date entered.

SE Definitions

	1.	2.	3.	4.	5.	6.
Rating Timing	B1	B2	C1	E1	H1	H2
SE Name	PE12AD1	EE22AD3	PE12AD1	EE22AD3	EE22AD3	HM41NA3
SE Description	Estimation % phytotoxicity (PHYGEN) (symptoms describe in co	1 weed, % efficacy, in untreated % coverage	Estimation % phytotoxicity (PHYGEN) (symptoms describe in co	1 weed, % efficacy, in untreated % coverage	1 weed, % efficacy, in untreated % coverage	harvest, measurement BU/Acre, weight-standard moisture KG/ HA

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Sponsor Contact:

Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	25	26	27
	Pest Type								
	Pest Code								
	Pest Name								
	Crop Type, Code						C GLXMA	C GLXMA	C GLXMA
	Crop Name						Soybean	Soybean	Soybean
	Rating Date						Oct-9-2020	Oct-9-2020	Oct-9-2020
	Rating Type						YIELD	MOICON	YIELD
	Rating Unit						LBS	%	BU
	Number of Subsamples						1	1	1
	Data Entry Date						Oct-12-2020	Oct-12-2020	
	Rating Timing								
	Days After First/Last Applic.						130 93	130 93	130 93
	Trt-Eval Interval								
	Days After Emergence						119 DE-1	119 DE-1	119 DE-1
	ARM Action Codes								TY1
	Number of Decimals						1	1	1
1	AG30XF0						101.8	12.1	59.7
1	XTENDIMAX	828	g ae/ha	22	oz/a	A			
1	WARRANT ULTRA HERBICIDE	1449	g ai/ha	48	oz/a	A			
1	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5	% v/v	0.5	% v/v	A			
1	XTENDIMAX	828	g ae/ha	22	oz/a	B			
1	ROUNDUP POWER MAX	1263	g ae/ha	32	oz/a	B			
1	WARRANT	1259	g ai/ha	48	oz/a	B			
1	CLASS ACT RIDION	1	% v/v	1	% v/v	B			
1	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5	% v/v	0.5	% v/v	B			
1	LIBERTY 280 SL	655	g ai/ha	32	oz/a	C			
1	N-PAK AMS LIQUID	3	% v/v	3	% v/v	C			
2	AG36XF0						96.6	12.7	56.3
2	XTENDIMAX	828	g ae/ha	22	oz/a	A			
2	WARRANT ULTRA HERBICIDE	1449	g ai/ha	48	oz/a	A			
2	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5	% v/v	0.5	% v/v	A			
2	XTENDIMAX	828	g ae/ha	22	oz/a	B			
2	ROUNDUP POWER MAX	1263	g ae/ha	32	oz/a	B			
2	WARRANT	1259	g ai/ha	48	oz/a	B			
2	CLASS ACT RIDION	1	% v/v	1	% v/v	B			
2	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5	% v/v	0.5	% v/v	B			
2	LIBERTY 280 SL	655	g ai/ha	32	oz/a	C			
2	N-PAK AMS LIQUID	3	% v/v	3	% v/v	C			
3	AG38XF0						98.0	12.5	57.2
3	XTENDIMAX	828	g ae/ha	22	oz/a	A			
3	WARRANT ULTRA HERBICIDE	1449	g ai/ha	48	oz/a	A			
3	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5	% v/v	0.5	% v/v	A			
3	XTENDIMAX	828	g ae/ha	22	oz/a	B			
3	ROUNDUP POWER MAX	1263	g ae/ha	32	oz/a	B			
3	WARRANT	1259	g ai/ha	48	oz/a	B			
3	CLASS ACT RIDION	1	% v/v	1	% v/v	B			
3	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5	% v/v	0.5	% v/v	B			
3	LIBERTY 280 SL	655	g ai/ha	32	oz/a	C			
3	N-PAK AMS LIQUID	3	% v/v	3	% v/v	C			
4	Credenz 3309GTLL						100.1	12.7	58.3
4	VERDICT	244	g ai/ha	5	oz/a	A			
4	DURANGO DMA	1702	g ae/ha	36	oz/a	B			
4	LIBERTY 280 SL	655	g ai/ha	32	oz/a	B			
4	OUTLOOK	630.4	g ai/ha	12	oz/a	B			
4	N-PAK AMS LIQUID	3	% v/v	3	% v/v	B			

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 25,26,27 because error mean square = 0.

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Protocol ID: HP20USAJU2 Investigator: Dr. Mark M. Loux
Project ID: LOCAL_PROJ Study Director: Pollard, Justin
Sponsor Contact:

Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	25	26	27
	Pest Type								
	Pest Code								
	Pest Name								
	Crop Type, Code						C GLXMA	C GLXMA	C GLXMA
	Crop Name						Soybean	Soybean	Soybean
	Rating Date						Oct-9-2020	Oct-9-2020	Oct-9-2020
	Rating Type						YIELD	MOICON	YIELD
	Rating Unit						LBS	%	BU
	Number of Subsamples						1	1	1
	Data Entry Date						Oct-12-2020	Oct-12-2020	
	Rating Timing								
	Days After First/Last Applic.						130 93	130 93	130 93
	Trt-Eval Interval								
	Days After Emergence						119 DE-1	119 DE-1	119 DE-1
	ARM Action Codes								TY1
	Number of Decimals						1	1	1
5	Becks 3442FP						93.1	12.0	54.7
5	VERDICT	244	g ai/ha	5	oz/a	A			
5	DURANGO DMA	1702	g ae/ha	36	oz/a	B			
5	LIBERTY 280 SL	655	g ai/ha	32	oz/a	B			
5	OUTLOOK	630.4	g ai/ha	12	oz/a	B			
5	AMS-XTRA	3	% v/v	3	% v/v	B			
6	Stine 35GB20						98.3	12.9	57.1
6	VERDICT	244	g ai/ha	5	oz/a	A			
6	DURANGO DMA	1702	g ae/ha	36	oz/a	B			
6	LIBERTY 280 SL	655	g ai/ha	32	oz/a	B			
6	OUTLOOK	630.4	g ai/ha	12	oz/a	B			
6	N-PAK AMS LIQUID	3	% v/v	3	% v/v	B			
7	Pioneer 30T99E						118.6	12.8	69.1
7	ENLIST ONE	732	g ae/ha	22	oz/a	A			
7	SONIC	196.1	g ai/ha	4	oz/a	A			
7	ENLIST ONE	732	g ae/ha	22	oz/a	B			
7	LIBERTY 280 SL	655	g ai/ha	32	oz/a	B			
7	DUAL II MAGNUM	1069	g ai/ha	16	oz/a	B			
7	AMS-XTRA	3	% v/v	3	% v/v	B			
7	DURANGO DMA	1702	g ae/ha	36	oz/a	C			
7	N-PAK AMS LIQUID	2	% v/v	2	% v/v	C			
8	Stine 35EB32						123.6	13.6	71.3
8	ENLIST ONE	732	g ae/ha	22	oz/a	A			
8	SONIC	196.1	g ai/ha	4	oz/a	A			
8	ENLIST ONE	732	g ae/ha	22	oz/a	B			
8	LIBERTY 280 SL	655	g ai/ha	32	oz/a	B			
8	DUAL II MAGNUM	1069	g ai/ha	16	oz/a	B			
8	AMS-XTRA	3	% v/v	3	% v/v	B			
8	DURANGO DMA	1702	g ae/ha	36	oz/a	C			
8	N-PAK AMS LIQUID	2	% v/v	2	% v/v	C			

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 25,26,27 because error mean square = 0.

The Ohio State University

Competitive Soybean Systems Comparison

Title No. 2: 2020-01-B7-08
Trial ID: 20SOYYLD2 Location: Western Branch F-6 Trial Year: 2020
Protocol ID: HP20USAJU2 Investigator: Dr. Mark M. Loux
Project ID: LOCAL_PROJ Study Director: Pollard, Justin
Sponsor Contact:

Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	25	26	27
	Pest Type								
	Pest Code								
	Pest Name								
	Crop Type, Code						C GLXMA	C GLXMA	C GLXMA
	Crop Name						Soybean	Soybean	Soybean
	Rating Date						Oct-9-2020	Oct-9-2020	Oct-9-2020
	Rating Type						YIELD	MOICON	YIELD
	Rating Unit						LBS	%	BU
	Number of Subsamples						1	1	1
	Data Entry Date						Oct-12-2020	Oct-12-2020	
	Rating Timing								
	Days After First/Last Applic.						130 93	130 93	130 93
	Trt-Eval Interval								
	Days After Emergence						119 DE-1	119 DE-1	119 DE-1
	ARM Action Codes								TY1
	Number of Decimals						1	1	1
9	Geneis 3714ES						121.2	13.4	70.1
9	ENLIST ONE	732	g ae/ha	22	oz/a	A			
9	SONIC	196.1	g ai/ha	4	oz/a	A			
9	ENLIST ONE	732	g ae/ha	22	oz/a	B			
9	LIBERTY 280 SL	655	g ai/ha	32	oz/a	B			
9	DUAL II MAGNUM	1069	g ai/ha	16	oz/a	B			
9	AMS-XTRA	3	% v/v	3	% v/v	B			
9	DURANGO DMA	1702	g ae/ha	36	oz/a	C			
9	N-PAK AMS LIQUID	2	% v/v	2	% v/v	C			
	LSD P=.05						.	.	.
	Standard Deviation						.	.	.
	CV						.	.	.
	Grand Mean						105.70	12.75	61.54
	Levene's F						.	.	.
	Levene's Prob(F)						.	.	.
	Rank X2						.	.	.
	P(Rank X2)						.	.	.
	Skewness						0.7429	0.2541	0.7232
	Kurtosis						-1.5104	-0.3962	-1.5897

Crop Type, Code
C = EPPO species (Bayer) codes
GLXMA, BSOY, Glycine max, Soybean = US
Rating Type
YIELD = yield
MOICON = moisture content
Rating Unit
% = percent
BU = bushel
ARM Action Codes
TY1 = 0.5808*[25]*(100-[26])/87

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 25,26,27 because error mean square = 0.