

The Ohio State University

UPL FALL CORN

Trial ID: 21FALLCORN2 Location: Western Branch F-9 West Trial Year: 2021
 Protocol ID: 21FALLCORN Investigator (Creator): Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

General Trial Information

Investigator: Dr. Mark M. Loux

Discipline: H herbicide
 Trial Status: E established

ARM Trial Created On: May-25-2021
 Initiation Date: Oct-28-2020

Trial Location

City: South Charleston Country: USA United States
 State/Prov.: Ohio
 Postal Code: 45368

Latitude of LL Corner °: 39.85871 N
 Longitude of LL Corner °: -83.6708 W
 Altitude of LL Corner: 1083.00 FT

Conducted Under GLP: No
 Conducted Under GEP: No
 Role: INVEST investigator
 Investigator: Dr. Mark M. Loux

Crop Description

Crop 1: C ZEAMX Zea mays Corn
 Entry Date: May-17-2021 Stage Scale: BBCH
 Variety: Pioneer P1197
 Attributes: Glyphosate-R, Glufosinate-R
 Planting Date: May-26-2021 Planting Rate: 32097 S/A
 Depth: 2 IN
 Rows per Plot: 4 Planting Method: PLANTD planted
 Row Spacing: 30 IN Planting Equipment: FPP finger pickup planter
 Seed Bed: MEDIUM medium
 Soil Temperature: 68 F Soil Moisture: NORMAL normal, adequate
 Emergence Date: Jun-9-2021
 Harvest Date: Oct-11-2021 Harvest Equipment: Kincaid 8XP
 Moisture Meter: Harvest Master Harvested Width: 5 FT
 % Standard Moisture: 15.5 Harvested Length: 30 FT
 Weighing Equipment: Harvest Master HM800

Pest Description

Pest 1 Type: W Code: ERICA Erigeron canadensis Entry Date: Nov-6-2020
 Common Name: Canada horseweed Stage Scale: BBCH
 Attributes: GLY-R
 Pest 2 Type: W Code: AMBTR Ambrosia trifida Entry Date: Nov-6-2020
 Common Name: Giant ragweed Stage Scale: BBCH
 Attributes: GLY-R
 Pest 3 Type: W Code: SETFA Setaria faberi Entry Date: Jun-14-2021
 Common Name: Giant foxtail Stage Scale: BBCH
 Pest 4 Type: W Code: AMARE Amaranthus retroflexus Entry Date: Jun-14-2021
 Common Name: Redroot pigweed Stage Scale: BBCH

Site and Design

Treated Plot Width: 6.67 FT Site Type: FIELD field
 Treated Plot Length: 30 FT Experimental Unit: 1 PLOT plot
 Treated Plot Area: 200.1 FT² Treatments: 6 Tillage Type: NOTILL no-till
 Replications: 3 Study Design: RACOB� Randomized Complete Block (RCB)

Previous

No. Crop Year
 1. SOYBEAN 2020

Soil Description

Description Name: F-9 East
 % Sand: 36 % OM: 3 Texture: SICL silty clay loam
 % Silt: 49 pH: 6.4 Soil Name: Kokomo
 % Clay: 15 CEC: 17.8 Fert. Level: G good
 Soil Drainage: G good

The Ohio State University

UPL FALL CORN

Trial ID: 21FALLCORN2 Location: Western Branch F-9 West Trial Year: 2021
 Protocol ID: 21FALLCORN Investigator (Creator): Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Application Description

	A	B	C
Application Date	May-27-2021	Jun-11-2021	Jun-23-2021
Appl. Start Time	8:00 AM	1:25 PM	9:00 AM
Appl. Stop Time	8:30 AM	1:30 PM	9:20 AM
Application Method	SPRAY	SPRAY	SPRAY
Application Timing	PREPRE	EPO	POST
Application Placement	BROFOL	BROFOL	BROFOL
Applied By	Dobbels	Dobbels	Dobbels
Appl. Entry Date	Jun-2-2021	Jun-14-2021	Jun-24-2021
Air Temperature Start, Stop	66 66 F	81 81 F	64 64 F
% Relative Humidity Start, Stop	80 80	70 70	55 55
Wind Velocity+Dir. Start	6 MPH ENE	6 MPH N	8 MPH SW
Wind Velocity+Dir. Stop	6 MPH ENE	6 MPH N	8 MPH SW
Wind Velocity+Dir. Max	7 MPH ENE	6 MPH N	8 MPH SW
Wet Leaves (Y/N)	Y yes	N no	Y yes
Soil Temperature	64 F	78 F	79 F
Soil Moisture	WET	SLIWET	DRY
Soil Surface Condition	MEDIUM	MEDIUM	MEDIUM
% Cloud Cover	5	60	20
Next Moisture Occurred On	May-28-2021	Jun-18-2021	Jun-29-2021
Time to Next Moisture	1.0 DAY	6.0 DAY	6.0 DAY
Moisture 6 Hours after Appl.	0 IN	0 IN	0 IN
Moisture 1 Week after Appl.	0.76 IN	0.35 IN	1.45 IN

Crop Stage At Each Application

	A		B		C	
Crop 1 Code, BBCH Scale	ZEAMX	BCOR	ZEAMX	BCOR	ZEAMX	BCOR
Days after Emergence	-13		2		14	
Stage Majority, Percent	00	100	13	100	16	100
Height Average			7	IN	17	IN
Height Minimum, Maximum			6	7	17	18

Pest Stage At Each Application

	A		B		C	
Pest 1 Code, Type, Scale	ERICA	W BBCH	ERICA	W BBCH	ERICA	W BBCH
Stage Majority, Percent	19	100				
Diameter Average	2	IN				
Diameter Minimum, Maximum	2	3				
Height Average	3	IN				
Height Minimum, Maximum	2	3				
Density Average	1	PLA/m2				
Density Minimum, Maximum	0	3				
Pest 2 Code, Type, Scale	AMBTR	W BBCH	AMBTR	W BBCH	AMBTR	W BBCH
Stage Majority, Percent	14	100	18	80	18	100
Stage Minimum, Percent			14	10		
Stage Maximum, Percent			18	60		
Height Average	3	IN	5	IN	8	IN
Height Minimum, Maximum	2	3	3	6	4	10
Density Average	6	PLA/m2			3	PLA/m2
Density Minimum, Maximum	3	9			1	6
Pest 3 Code, Type, Scale	SETFA	W BBCH	SETFA	W BBCH	SETFA	W BBCH
Stage Majority, Percent			13	100	15	80
Stage Minimum, Percent					13	10
Stage Maximum, Percent					16	10
Height Average			3	IN	6	IN
Height Minimum, Maximum			1	5	5	8
Density Average			235	PLA/m2	125	PLA/m2
Density Minimum, Maximum			125	324	98	234
Pest 4 Code, Type, Scale	AMARE	W BBCH	AMARE	W BBCH	AMARE	W BBCH
Stage Majority, Percent			14	100	14	80
Stage Minimum, Percent					14	80
Stage Maximum, Percent					16	20
Height Average			1	IN	3	IN
Height Minimum, Maximum			1	3	1	3
Density Average			6	PLA/m2	8	PLA/m2
Density Minimum, Maximum			1	10	3	19

The Ohio State University

UPL FALL CORN

Trial ID: 21FALLCORN2 Location: Western Branch F-9 West Trial Year: 2021
 Protocol ID: 21FALLCORN Investigator (Creator): Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Application Equipment

	A	B	C
Appl. Equipment	6' AIXR	6' AIXR	6' AIXR
Equipment Type	BACCAI	BACCAI	BACCAI
Operation Pressure	44 PSI	44 PSI	44 PSI
Nozzle Model	110015	110015	110015
Nozzle Type	AIXR	AI XR	AI XR
Nozzle TradeName		TeeJet	TeeJet
Nozzle Tip Size, Color		015 green	015 green
Nozzle Spacing	18 IN	18 IN	18 IN
Boom Length	6.67 FT	6.67 FT	6.67 FT
Boom Height	20 IN	20 IN	20 IN
Ground Speed	3 MPH	3 MPH	3 MPH
Carrier	WATER	WATER	WATER
Water Hardness (ppm CaCO3)		250	250
Application Amount	15 GAL/AC	15 GAL/AC	15 GAL/AC
Mix Coverage		25 mL	25 mL
Mix Size	1 L	2 L	2 L
Spray pH		7.8	7.8
Propellant	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N)		Y yes	Y yes

Notes

Context	Date	By	Notes
STATUS	Oct-28-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Nov-6-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'E' when Application Date entered.

Pest Type

Pest Code

Pest Name

Crop Type, Code

Crop Name

Rating Date

Rating Type

Rating Unit/Min/Max

Number of Subsamples

Data Entry Date

Days After First/Last Applic.

Trt-Eval Interval

Days After Emergence

ARM Action Codes

Number of Decimals

Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit Code	16*	17*	18*	19*
1	UTC				19.7 b	23.5 -	92.2 b	50.0 -
2	Roundup Powermax	32 oz/a			54.2 a	25.7 -	246.6 a	51.0 -
	2,4-D Ester	16 oz/a						
	N Pak AMS	2.5 % v/v						
	Roundup Powermax	32 oz/a	A					
	Preview	19.7 oz/a	A					
	N Pak AMS	2.5 % v/v	A					
	Intermoc	64 oz/a	B					
	N Pak AMS	2.5 % v/v	B					
	Interline	32 oz/a	C					
	N Pak AMS	2.5 % v/v	C					
3	Roundup Powermax	32 oz/a			52.9 a	25.0 -	243.3 a	51.3 -
	2,4-D Ester	16 oz/a						
	N Pak AMS	2.5 % v/v						
	Intermoc	64 oz/a	A					
	N Pak AMS	2.5 % v/v	A					
	Interline	32 oz/a	C					
	N Pak AMS	2.5 % v/v	C					

The Ohio State University

UPL FALL CORN

Trial ID: 21FALLCORN2 Location: Western Branch F-9 West Trial Year: 2021
 Protocol ID: 21FALLCORN Investigator (Creator): Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit Code	16*	17*	18*	19*
4	Roundup Powermax	32 oz/a			54.7 a	23.8 -	255.7 a	52.4 -
	2,4-D Ester	16 oz/a						
	N Pak AMS	2.5 % v/v						
	Intermoc	64 oz/a		A				
	Resolve	1 oz/a		A				
	N Pak AMS	2.5 % v/v		A				
	Interline	32 oz/a		C				
	N Pak AMS	2.5 % v/v		C				
5	Roundup Powermax	32 oz/a			56.0 a	26.2 -	253.5 a	51.7 -
	2,4-D Ester	16 oz/a						
	N Pak AMS	2.5 % v/v						
	Intermoc	64 oz/a		A				
	N Pak AMS	2.5 % v/v		A				
	Interline	32 oz/a		C				
	Resolve	1 oz/a		C				
	N Pak AMS	2.5 % v/v		C				
6	Roundup Powermax	32 oz/a			55.9 a	25.0 -	256.6 a	51.3 -
	2,4-D Ester	16 oz/a						
	N Pak AMS	2.5 % v/v						
	Interline	32 oz/a		B				
	Resolve	1 oz/a		B				
	N Pak AMS	2.5 % v/v		B				
	LSD P=.05				7.63	5.09	29.41	2.47
	Standard Deviation				4.20	2.80	16.17	1.36
	CV				8.59	11.24	7.2	2.65
	Levene's F^				0.315	0.375	0.884	0.207
	Levene's Prob(F)				0.895	0.856	0.521	0.953
	Skewness^				-0.143	-0.5452	-0.46	-0.1147
	Kurtosis^				-0.8539	0.0318	0.1179	-1.1636
	Replicate F				0.851	0.059	1.349	4.053
	Replicate Prob(F)				0.4556	0.9431	0.3029	0.0514
	Treatment F				35.098	0.428	48.657	1.039
	Treatment Prob(F)				0.0001	0.8190	0.0001	0.4463

Crop Type, Code

C = EPP0 species (Bayer) codes
 ZEAMX, BCOR, Zea mays, Corn = US

Rating Type

WEIGHT = weight
 MOICON = moisture content
 YIELD = yield
 WEITES = weight - test

Rating Unit/Min/Max

%, 0, 100 = percent
 BU, , = bushel

ARM Action Codes

TY1 = 5.18571429*[16]*(100-[17])/84.5