

Ohio State University Horticulture and Crop Science

2011/CADET/CORN/EARLY POSTEMERGENCE/

Title No. 2:
 Trial ID: 11NTC1 Protocol ID: 11NTC1
 Location: WESTERN BRANCH F-9 E Study Director: Anthony F. Dobbels
 Project ID: Investigator: Dr. Mark M. Loux
 Sponsor Contact: Joe Reed, FMC

General Trial Information

Study Director: Anthony F. Dobbels **Title:** Research Specialist
Investigator: Dr. Mark M. Loux **Title:** Professor

Trial Location

City: South Charleston **Latitude of LL Corner °:** 39.85884 N
State/Prov.: Ohio **Longitude of LL Corner °:** -83.67351 W
Postal Code: 45368
Country: USA

Crop Description

Crop 1: ZEAMX Zea mays Corn
Variety: Dekalb DKC 61-21
BBCH Scale: BCOR **Description:** RR
Planting Method: SEEDED seeded **Planting Date:** May-22-2011
Depth, Unit: 2 IN **Rate, Unit:** 34237 S/A
Row Spacing, Unit: 30 IN
Seed Bed: MEDIUM medium **Soil Temperature, Unit:** 71 F
Soil Moisture: SLIWET slightly wet **Emergence Date:** Jun-1-2011
Harvested Width, Unit: 5 FT **Harvested Length, Unit:** 30 FT

Pest Description

- Pest 1 Type:** W **Code:** LAMPU *Lamium purpureum*
Common Name: Purple deadnettel
- Pest 2 Type:** W **Code:** CAPBP *Capsella bursa-pastoris*
Common Name: Shepherd's purse
- Pest 3 Type:** W **Code:** ERYRE *Erysimum repandum*
Common Name: Bushy wallflower
- Pest 4 Type:** W **Code:** LEPVI *Lepidium virginicum*
Common Name: Virginia pepperweed
- Pest 5 Type:** W **Code:** VERAR *Veronica arvensis*
Common Name: Corn speedwell
- Pest 6 Type:** W **Code:** SETFA *Setaria faberi*
Common Name: Giant foxtail
- Pest 7 Type:** W **Code:** ECHCG *Echinochloa crus-galli*
Common Name: Common barnyardgrass
- Pest 8 Type:** W **Code:** AMBTR *Ambrosia trifida*
Common Name: Giant ragweed
- Pest 9 Type:** W **Code:** AMBEL *Ambrosia artemisiifolia*
Common Name: Common ragweed
- Pest10 Type:** W **Code:** POLPY *Persicaria pensylvanica*
Common Name: Pennsylvania smartweed
- Pest11 Type:** W **Code:** CHEAL *Chenopodium album*
Common Name: Common lambsquarters
- Pest12 Type:** W **Code:** AMARE *Amaranthus retroflexus*
Common Name: Redroot pigweed
- Pest13 Type:** W **Code:** ABUTH *Abutilon theophrasti*
Common Name: Velvetleaf
- Pest14 Type:** W **Code:** ERICA *Conyza canadensis*
Common Name: Canada horseweed

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Site and Design

Plot Width, Unit: 6.67 FT Site Type: FIELD field
 Plot Length, Unit: 30 FT Experimental Unit: 1 PLOT plot
 Plot Area, Unit: 200.1 FT2 Tillage Type: NOTILL no-till
 Replications: 3 Study Design: RACOB L Randomized Complete Block (RCB)
 Untreated Arrangement: INCLUDED single control randomized in each block

Soil Description

Description Name: F-9 West
 % OM: 2 Texture: SICL silty clay loam
 pH: 6.1 Soil Name: Kokomo
 CEC: 11.5 Fert. Level: G good
 Soil Drainage: G good

Application Description

	A	B
Application Date:	Apr-21-2011	Jun-9-2011
Time of Day:	9:00 A.M.	9:00 A.M.
Application Method:	SPRAY	SPRAY
Application Timing:	7 EPP	EPO
Application Placement:	BROFO	BROFO
Applied By:	McCormick	Dobbels
Air Temperature, Unit:	43 F	81 F
% Relative Humidity:	64	58
Wind Velocity, Unit:	6 MPH	2.5 MPH
Wind Direction:	NNE	SW
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	42 F	72 F
Soil Moisture:	WET	SLIDRY
% Cloud Cover:	5	5
Next Rain Occurred On:	Apr-22-2011	Jun-10-2011

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:		B
Stage Majority, Percent:		14 100
Height, Unit:		5 IN
Height Minimum, Maximum:		4 6

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	LAMPU W	LAMPU W
Stage Majority, Percent:	19 100	
Diameter, Unit:	4 IN	
Height, Unit:	4 IN	
Height Minimum, Maximum:	2 4	
Density, Unit:	8.3 M2	
Pest 2 Code, Type, Scale:	CAPBP W	CAPBP W
Stage Majority, Percent:	19 100	
Diameter, Unit:	4 IN	
Height, Unit:	6 IN	
Height Minimum, Maximum:	6 8	
Density, Unit:	2 M2	
Pest 3 Code, Type, Scale:	ERYRE W	ERYRE W
Stage Majority, Percent:	19 100	
Diameter, Unit:	6 IN	
Height, Unit:	4 IN	
Height Minimum, Maximum:	4 6	
Density, Unit:	4.6 M2	
Pest 4 Code, Type, Scale:	LEPVI W	LEPVI W
Stage Majority, Percent:	61 100	
Height, Unit:	12 IN	
Height Minimum, Maximum:	12 14	
Density, Unit:	0.33 M2	
Pest 5 Code, Type, Scale:	VERAR W	VERAR W
Stage Majority, Percent:	61 100	69 100
Diameter, Unit:	6 IN	6 IN
Height, Unit:	1 IN	3 IN
Height Minimum, Maximum:	1 2	2 3

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Density, Unit:	2 M2	2 M2
Pest 6 Code, Type, Scale:	SETFA W	SETFA W
Stage Majority, Percent:	16	90
Stage Minimum, Percent:	14	10
Stage Maximum, Percent:	16	90
Height, Unit:	10	IN
Height Minimum, Maximum:	10	12
Density, Unit:	58.66	M2
Pest 7 Code, Type, Scale:	ECHCG W	ECHCG W
Stage Majority, Percent:	18	90
Stage Minimum, Percent:	16	10
Stage Maximum, Percent:	18	90
Height, Unit:	4	IN
Height Minimum, Maximum:	3	4
Density, Unit:	48	M2
Pest 8 Code, Type, Scale:	AMBTR W	AMBTR W
Stage Majority, Percent:	18	90
Stage Minimum, Percent:	16	10
Stage Maximum, Percent:	19	90
Height, Unit:	8	IN
Height Minimum, Maximum:	5	9
Density, Unit:	4	M2
Pest 9 Code, Type, Scale:	AMBEL W	AMBEL W
Stage Majority, Percent:	18	100
Height, Unit:	6	IN
Height Minimum, Maximum:	4	7
Density, Unit:	9.33	M2
Pest10 Code, Type, Scale:	POLPY W	POLPY W
Stage Majority, Percent:	16	100
Height, Unit:	3	IN
Height Minimum, Maximum:	2	3
Density, Unit:	1.33	M2
Pest11 Code, Type, Scale:	CHEAL W	CHEAL W
Stage Majority, Percent:	19	100
Height, Unit:	4	IN
Height Minimum, Maximum:	4	4
Density, Unit:	4	M2
Pest12 Code, Type, Scale:	AMARE W	AMARE W
Stage Majority, Percent:	14	100
Height, Unit:	2	IN
Height Minimum, Maximum:	2	2
Density, Unit:	1.33	M2
Pest13 Code, Type, Scale:	ABUTH W	ABUTH W
Stage Majority, Percent:	15	90
Stage Minimum, Percent:	14	10
Stage Maximum, Percent:	15	90
Height, Unit:	3	IN
Height Minimum, Maximum:	2	3
Density, Unit:	4	M2
Pest14 Code, Type, Scale:	ERICA W	ERICA W
Stage Majority, Percent:	19	100
Diameter, Unit:	4	IN
Height, Unit:	3	IN
Height Minimum, Maximum:	1	3
Density, Unit:	46.66	M2

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Application Equipment

	A	B
Appl. Equipment:	6 foot boom	6 foot boom
Equipment Type:	SPRBAC	SPRBAC
Operation Pressure, Unit:	46 PSI	46 PSI
Nozzle Type:	TEEJET DG	TEEJET DG
Nozzle Size:	80015	80015
Nozzle Spacing, Unit:	18 IN	18 IN
Boom Length, Unit:	6 FT	6 FT
Boom Height, Unit:	20 IN	20 IN
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	15 GPA	15 GPA
Mix Size, Unit:	0.33 Gallons	0.33 Gallons
Propellant:	CO2	CO2

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Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Code	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn
Rating Date	Oct-26-2011	Oct-26-2011	Oct-26-2011
Rating Type	YIELD	MOICON	YIELD
Rating Unit	LBS	%	BU
Number of Subsamples	1	1	1
Rating Timing			
Days After First/Last Applic.	188 139	188 139	188 139
Trt-Eval Interval	HARVEST	HARVEST	HARVEST
Plant-Eval Interval	157 DP-1	157 DP-1	157 DP-1
Days After Emergence	147 DE-1	147 DE-1	147 DE-1
ARM Action Codes			TY1
Number of Decimals	1	1	1

Trt No.	Treatment Name	Rate	Appl	23	24	25
		Rate Unit	Code			
1	DUAL II MAGNUM	8 oz/a	A	25.6 a	19.7 a	127.2 a
	ROUNDUP POWERMAX	32 oz/a	B			
	N-PAK AMS	2.5 % v/v	B			
2	DUAL II MAGNUM	8 oz/a	A	30.5 a	20.0 a	150.4 a
	CADET	0.6 oz/a	B			
	ROUNDUP POWERMAX	32 oz/a	B			
	N-PAK AMS	2.5 % v/v	B			
3	BICEP LITE II MAGNUM	48 oz/a	A	26.4 a	17.6 a	133.6 a
	CADET	0.6 oz/a	B			
	ROUNDUP POWERMAX	32 oz/a	B			
	N-PAK AMS	2.5 % v/v	B			
4	DUAL II MAGNUM	8 oz/a	A	27.0 a	21.4 a	130.4 a
	CADET	0.6 oz/a	B			
	AATREX	32 oz/a	B			
	ROUNDUP POWERMAX	32 oz/a	B			
	N-PAK AMS	2.5 % v/v	B			
5	DUAL II MAGNUM	8 oz/a	A	29.9 a	21.1 a	145.8 a
	CADET	0.6 oz/a	B			
	HORNET	3 oz/a	B			
	ROUNDUP POWERMAX	32 oz/a	B			
	N-PAK AMS	2.5 % v/v	B			
6	DUAL II MAGNUM	8 oz/a	A	34.6 a	22.0 a	165.9 a
	CADET	0.6 oz/a	B			
	IMPACT HERBICIDE	0.5 oz/a	B			
	AATREX	16 oz/a	B			
	ROUNDUP POWERMAX	32 oz/a	B			
	N-PAK AMS	2.5 % v/v	B			
7	DUAL II MAGNUM	8 oz/a	A	25.4 a	19.4 a	125.1 a
	ROUNDUP POWERMAX	32 oz/a	B			
	STATUS	5 oz/a	B			
	N-PAK AMS	2.5 % v/v	B			

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

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Code	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn
Rating Date	Oct-26-2011	Oct-26-2011	Oct-26-2011
Rating Type	YIELD	MOICON	YIELD
Rating Unit	LBS	%	BU
Number of Subsamples	1	1	1
Rating Timing			
Days After First/Last Applic.	188 139	188 139	188 139
Trt-Eval Interval	HARVEST	HARVEST	HARVEST
Plant-Eval Interval	157 DP-1	157 DP-1	157 DP-1
Days After Emergence	147 DE-1	147 DE-1	147 DE-1
ARM Action Codes			TY1
Number of Decimals	1	1	1

Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code	23	24	25
8 DUAL II MAGNUM	8 oz/a	A	30.5 a	20.4 a	148.6 a
ROUNDUP POWERMAX	32 oz/a	B			
CAPRENO	3 oz/a	B			
N-PAK AMS	2.5 % v/v	B			
LSD (P=.05)			10.66	6.83	59.64
Standard Deviation			6.08	3.90	34.05
CV			21.16	19.32	24.17
Bartlett's X2			10.023	11.606	11.216
P(Bartlett's X2)			0.187	0.114	0.129
Replicate F			3.692	1.532	2.194
Replicate Prob(F)			0.0516	0.2503	0.1483
Treatment F			0.825	0.370	0.516
Treatment Prob(F)			0.5828	0.9052	0.8078

Crop Code
 ZEAMX, BCOR, Zea mays, = US
 Rating Type
 YIELD = yield
 MOICON = moisture content
 Rating Unit
 % = percent
 BU = bushel
 Plant-Eval Interval
 157 DP-1 = 1 May-22-2011
 ARM Action Codes
 TY1 = 5.185714*[23]*(100-[24])/84.5

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