



AgriCenter International

2015 Nachurs In-furrow Evaluation in Corn

Trial ID: 2015 Nachurs Corn Location: Agricenter Trial Year: 2015
 Protocol ID: 2015 Nachurs Corn Investigator: K Bruce Kirksey
 Project ID: Study Director: Dr. K. Bruce Kirksey
 Sponsor Contact: Keith Flaniken

Reps: 4 Plots: 10 by 40 feet
 Mix Size: 3 liters

Trt No.	Treatment Name	Form Type	Rate	Growth Unit	Stage	Appl Code	Appl Description	Spray Volume	Volume Unit	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	Untreated Check										101	204	306	407
2	NACHURS 6-22-6-1S-.2Zn	LS	4 gal/a	ATPLAN	A		IN FURROW	4 GAL/AC		2999.7 ml/mx	102	207	304	405
3	NACHURS Rhyzo-Link 9-15-3	LS	4 gal/a	ATPLAN	A		IN FURROW	4 GAL/AC		2999.7 ml/mx	103	202	301	408
4	NACHURS Rhyzo-Link 3-10-12-1S	LS	4 gal/a	ATPLAN	A		IN FURROW	4 GAL/AC		2999.7 ml/mx	104	201	303	402
5	NACHURS W18-1-02Zn	LS	4 gal/a	ATPLAN	A		IN FURROW	4 GAL/AC		2999.7 ml/mx	105	203	305	403
6	NACHURS SRN	LS	1.5 gal/a	POEMCR	B		V4-V5	10 GAL/AC		450.0 ml/mx	106	205	302	401
7	NACHURS Finish Line	LS	1 qt/a	POEMCR	B		V4-V5	10 GAL/AC		75.0 ml/mx	107	208	307	406
8	NACHURS Finish Line	LS	2 qt/a	POEMCR	B		V4-V5	10 GAL/AC		150.0 ml/mx	108	206	308	404

Sort Order: Treatment

General Trial Information

Study Director: Dr. K. Bruce Kirksey **Title:** Director of Research
Investigator: Dr. K. Bruce Kirksey **Title:** Director of Farm and Research

Discipline: D fertilizer

Trial Location

City: Memphis **Country:** USA United States
State/Prov.: Tennessee
Postal Code: 38120 **Climate Zone:** EPPOSE EPPO South East

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Study Director: Dr. K. Bruce Kirksey **Title:** Director of Research
Organization: Agricenter International
Address: 7777 Walnut Grove Road **Phone No.:** 901-757-7754
City+State/Prov: Memphis, TN **Mobile No.:** 901-355-9124
Postal Code: 38120 **E-mail:** bkirksey@agricenter.org
Country: USA United States

Investigator: Dr. K. Bruce Kirksey **Title:** Director of Farm and Research
Organization: Agricenter International
Address: 7777 Walnut Grove Road **Phone No.:** 901-757-7754
City+State/Prov: Memphis, TN **Mobile No.:** 901-355-9124
Postal Code: 38120 **E-mail:** bkirksey@agricenter.org
Country: USA United States

Cooperator/Landowner

Cooperator: Keith Flaniken **Role:** Sales Agronomist
Organization: Nachurs
Address 1: 410 Woodbridge Road
City: Somerville **Phone No.:** 9014659043
State/Prov: TN **Fax No.:** 9014659043
Postal Code: 38068 **Mobile No.:** 9014841575
Country: USA United States **E-mail:** flanikenk@nachurs.com

Crop Description

Crop 1: ZEAMD Zea mays indentata Dent corn
Variety: N78S-3111 **BBCH Scale:** BCOR
Planting Date: Apr-13-2015
Planting Rate, Unit: 32000 S/A **Planting Method:** PLANTD planted
Depth, Unit: 1.5 IN **Planting Equipment:** PP Plot Planter
Row Spacing, Unit: 30 IN **Emergence Date:** Apr-22-2015
Harvest Date: Oct-1-2015
Harvested Width, Unit: 6.3 FT
Harvested Length, Unit: 25 FT
Harvest Equipment: Massey 8XP Combine
% Standard Moisture: 15.0

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Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 40 FT
Treated Plot Area: 400 FT² **Treatments:** 8 **Tillage Type:** CONTIL conventional-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)

Soil Description

Description Name: DU Field 2015
% Sand: 11.3 **% OM:** 1.7 **Texture:** SIL silt loam
% Silt: 71 **pH:** 6.3 **Soil Name:** Falaya
% Clay: 17.7 **CEC:** 4.8 **Fert. Level:** G good
 Soil Drainage: G good

Application Description

	A	B
Application Date:	Apr-13-2015	Jun-2-2015
Application Method:	SEEAPO	SPRAY
Application Timing:	ATPLAN	POEMCR
Application Placement:	INFURR	BROFOL
Applied By:	Kirksey	Kirksey
Air Temperature, Unit:	72 F	75.4 F
% Relative Humidity:	54	69
Wind Velocity, Unit:	3 MPH	3 MPH
Wind Direction:	NE	NNE
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	65 F	
Soil Moisture:	EXCELL	EXCELL
% Cloud Cover:		50

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	ZEAMD BCOR	ZEAMD BCOR
Stage Scale Used:	BBCH	BBCH
Stage Majority, Percent:	00	15
Stage Minimum, Percent:		15
Stage Maximum, Percent:		16
Height, Unit:		30 IN

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Application Equipment

	A	B
Appl. Equipment:	Planter	CO2 Backpack
Equipment Type:	BACCAI	BACCAI
Operation Pressure, Unit:	30 PSI	30 PSI
Nozzle Type:	FLAEVE	FLAFAN
Nozzle Size:	8002	8002
Nozzle Spacing, Unit:	38 IN	20 IN
Nozzles/Row:	1	2
Band Width, Unit:	12 IN	
% Coverage:	30	100
Boom Length, Unit:	12.6 FT	6 FT
Boom Height, Unit:	6 IN	19 IN
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	15 gal/ac	10 gal/ac
Mix Size, Unit:	3 liters	3 liters
Propellant:	COMCO2	COMCO2



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Crop Code	ZEAMD	ZEAMD	ZEAMD	ZEAMD	
BBCH Scale	BCOR	BCOR	BCOR	BCOR	
Crop Scientific Name	Zea mays inden>	Zea mays inden>	Zea mays inden>	Zea mays inden>	
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	
Crop Variety	N78S-3111	N78S-3111	N78S-3111	N78S-3111	
Part Rated	PLAEME C	TA50ST C	PLANT C	GRAIN C	
Rating Date	May-8-2015	Jul-30-2015	Jul-30-2015	Oct-1-2015	
Rating Type	STAOBJ	TASSEL	DIAMET	YIELD	
Rating Unit	NUMBER	DAY50	mm	lb/plot	
Sample Size, Unit				1 PLOT	
Number of Subsamples	1	1	1	1	
Days After First/Last Applic.	25 25	108 58	108 58	171 121	
Trt-Eval Interval	25 DA-A				
Plant-Eval Interval	25 DP-1	108 DP-1	108 DP-1	171 DP-1	
Days After Emergence	16 DE-1	99 DE-1	99 DE-1	162 DE-1	
ARM Action Codes					
Number of Decimals					
Trt Treatment	Rate Appl				
No. Name	Rate Unit Code Plot	1	2	3	
1 Untreated Check	101	14.0	81.0	17.500	27.90
	204	15.0	81.0	18.500	25.10
	306	16.0	81.0	18.150	25.50
	407	14.0	80.0	18.250	25.40
	Mean =	14.8	80.8	18.100	25.98
2 NACHURS 6-22-6-1S-.2Zn 4 gal/a A	102	14.0	80.0	21.050	33.50
	207	12.0	80.0	22.000	31.50
	304	15.0	80.0	22.150	33.00
	405	14.0	80.0	21.250	36.60
	Mean =	13.8	80.0	21.613	33.65
3 NACHURS Rhyzo-Link 9-15-3 4 gal/a A	103	15.0	80.0	20.250	33.90
	202	16.0	79.0	20.750	30.90
	301	14.0	79.0	21.050	30.40
	408	15.0	79.0	21.150	31.50
	Mean =	15.0	79.3	20.800	31.68
4 NACHURS Rhyzo-Link 3-10-12-1S 4 gal/a A	104	15.0	79.0	21.550	30.20
	201	13.0	79.0	21.600	32.40
	303	14.0	79.0	21.950	36.70
	402	15.0	79.0	21.850	35.60
	Mean =	14.3	79.0	21.738	33.73
5 NACHURS W18-1-02Zn 4 gal/a A	105	14.0	80.0	20.500	36.60
	203	15.0	80.0	20.950	35.90
	305	14.0	80.0	21.000	34.90
	403	16.0	80.0	20.550	31.60
	Mean =	14.8	80.0	20.750	34.75
6 NACHURS SRN 1.5 gal/a B	106	16.0	80.0	21.150	29.00
	205	14.0	80.0	21.100	22.50
	302	15.0	80.0	20.550	29.10
	401	15.0	80.0	21.650	23.20
	Mean =	15.0	80.0	21.113	25.95
7 NACHURS Finish Line 1 qt/a B	107	14.0	80.0	21.550	27.20
	208	13.0	80.0	21.650	31.20
	307	14.0	80.0	21.250	26.10
	406	14.0	80.0	21.350	24.70
	Mean =	13.8	80.0	21.450	27.30
8 NACHURS Finish Line 2 qt/a B	108	14.0	79.0	21.500	29.40
	206	15.0	79.0	21.550	31.40
	308	15.0	79.0	21.050	28.60
	404	15.0	79.0	20.950	29.80
	Mean =	14.8	79.0	21.263	29.80



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Crop Code			ZEAMD
BBCH Scale			BCOR
Crop Scientific Name			Zea mays inden>
Crop Name			Dent corn
Crop Variety			N78S-3111
Part Rated			GRAIN C
Rating Date			Oct-1-2015
Rating Type			YIELD
Rating Unit			BU
Sample Size, Unit			1 A
Number of Subsamples			1
Days After First/Last Applic.			171 121
Trt-Eval Interval			
Plant-Eval Interval			171 DP-1
Days After Emergence			162 DE-1
ARM Action Codes			TY1
Number of Decimals			1
Trt Treatment	Rate Appl		
No. Name	Rate Unit Code Plot		5
1 Untreated Check		101	138.1
		204	124.3
		306	126.2
		407	125.7
		Mean =	128.6
2 NACHURS 6-22-6-1S-.2Zn	4 gal/a A	102	165.8
		207	155.9
		304	163.4
		405	181.2
		Mean =	166.6
3 NACHURS Rhyzo-Link 9-15-3	4 gal/a A	103	167.8
		202	153.0
		301	150.5
		408	155.9
		Mean =	156.8
4 NACHURS Rhyzo-Link 3-10-12-1S	4 gal/a A	104	149.5
		201	160.4
		303	181.7
		402	176.2
		Mean =	167.0
5 NACHURS W18-1-02Zn	4 gal/a A	105	181.2
		203	177.7
		305	172.8
		403	156.4
		Mean =	172.0
6 NACHURS SRN	1.5 gal/a B	106	143.6
		205	111.4
		302	144.1
		401	114.8
		Mean =	128.5
7 NACHURS Finish Line	1 qt/a B	107	134.7
		208	154.5
		307	129.2
		406	122.3
		Mean =	135.1
8 NACHURS Finish Line	2 qt/a B	108	145.5
		206	155.4
		308	141.6
		404	147.5
		Mean =	147.5

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Crop Code
 ZEAMD, BCOR, Zea mays indentata, = US
Part Rated
 PLAEME = plant - emerged
 TA50ST = tassel - 50% stage
 PLANT = plant
 GRAIN = grain
 C = Crop is Part Rated
Rating Type
 STAOBJ = stand - objective (based on counts)
 TASSEL = tasseling
 DIAMET = diameter
 YIELD = yield
Rating Unit
 NUMBER = number
 DAY50 = days to 50 %
 mm = millimeter
 lb/plot = pounds per plot
 BU = bushel

 PLOT = total plot
 A = acre
Plant-Eval Interval
 25 DP-1 = 1 ZEAMD Apr-13-2015
 108 DP-1 = 1 ZEAMD Apr-13-2015
 171 DP-1 = 1 ZEAMD Apr-13-2015
ARM Action Codes
 TY1 = 4.950396*[C4]

Crop Code	ZEAMD	ZEAMD	ZEAMD	ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays inden>	Zea mays inden>	Zea mays inden>	Zea mays inden>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	N78S-3111	N78S-3111	N78S-3111	N78S-3111
Part Rated	PLAEME C	TA50ST C	PLANT C	GRAIN C
Rating Date	May-8-2015	Jul-30-2015	Jul-30-2015	Oct-1-2015
Rating Type	STAOBJ	TASSEL	DIAMET	YIELD
Rating Unit	NUMBER	DAY50	mm	lb/plot
Sample Size, Unit				1 PLOT
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	25 25	108 58	108 58	171 121
Trt-Eval Interval	25 DA-A			
Plant-Eval Interval	25 DP-1	108 DP-1	108 DP-1	171 DP-1
Days After Emergence	16 DE-1	99 DE-1	99 DE-1	162 DE-1
ARM Action Codes				
Number of Decimals				
Trt Treatment	Rate Appl			
No. Name	Rate Unit Code	1	2	3
1 Untreated Check		14.8 a	80.8 a	18.100 c
2 NACHURS 6-22-6-1S-.2Zn	4 gal/a A	13.8 a	80.0 b	21.613 a
3 NACHURS Rhyzo-Link 9-15-3	4 gal/a A	15.0 a	79.3 c	20.800 b
4 NACHURS Rhyzo-Link 3-10-12-1S	4 gal/a A	14.3 a	79.0 c	21.738 a
5 NACHURS W18-1-02Zn	4 gal/a A	14.8 a	80.0 b	20.750 b
6 NACHURS SRN	1.5 gal/a B	15.0 a	80.0 b	21.113 ab
7 NACHURS Finish Line	1 qt/a B	13.8 a	80.0 b	21.450 ab



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	Sponsor Contact: Keith Flaniken

	ZEAMD BCOR	ZEAMD BCOR	ZEAMD BCOR	ZEAMD BCOR
Crop Code	Zea mays inden>	Zea mays inden>	Zea mays inden>	Zea mays inden>
BBCH Scale	Dent corn	Dent corn	Dent corn	Dent corn
Crop Scientific Name	N78S-3111	N78S-3111	N78S-3111	N78S-3111
Crop Name	PLAEME C	TA50ST C	PLANT C	GRAIN C
Crop Variety	May-8-2015	Jul-30-2015	Jul-30-2015	Oct-1-2015
Part Rated	STAOBJ	TASSEL	DIAMET	YIELD
Rating Date	NUMBER	DAY50	mm	lb/plot
Rating Type				1 PLOT
Rating Unit	1	1	1	1
Sample Size, Unit	25 25	108 58	108 58	171 121
Number of Subsamples	25 DA-A			
Days After First/Last Applic.	25 DP-1	108 DP-1	108 DP-1	171 DP-1
Trt-Eval Interval	16 DE-1	99 DE-1	99 DE-1	162 DE-1
Plant-Eval Interval				
Days After Emergence				
ARM Action Codes				
Number of Decimals				
Trt Treatment				
No. Name	Rate Appl Rate Unit Code			
8 NACHURS Finish Line	2 qt/a B	14.8 a	79.0 c	21.263 ab
				29.80 abc
LSD P=.05	1.31	0.36	0.5188	3.621
Standard Deviation	0.89	0.24	0.3528	2.463
CV	6.16	0.31	1.69	8.11
Bartlett's X2	3.523	0.0	5.468	5.692
P(Bartlett's X2)	0.833	.	0.603	0.576
Skewness	-0.4032	0.2143	-1.7699*	-0.1509
Kurtosis	0.6382	-0.4721	2.5189*	-0.7547
Replicate F	0.731	1.400	1.645	0.338
Replicate Prob(F)	0.5448	0.2706	0.2093	0.7979
Treatment F	1.343	25.200	43.818	8.621
Treatment Prob(F)	0.2798	0.0001	0.0001	0.0001



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Crop Code		ZEAMD
BBCH Scale		BCOR
Crop Scientific Name		Zea mays inden>
Crop Name		Dent corn
Crop Variety		N78S-3111
Part Rated		GRAIN C
Rating Date		Oct-1-2015
Rating Type		YIELD
Rating Unit		BU
Sample Size, Unit		1 A
Number of Subsamples		1
Days After First/Last Applic.		171 121
Trt-Eval Interval		
Plant-Eval Interval		171 DP-1
Days After Emergence		162 DE-1
ARM Action Codes		TY1
Number of Decimals		1
Trt No.	Treatment Name	Rate Appl Rate Unit Code
1	Untreated Check	5 128.6 c
2	NACHURS 6-22-6-1S-.2Zn	4 gal/a A 166.6 a
3	NACHURS Rhyzo-Link 9-15-3	4 gal/a A 156.8 ab
4	NACHURS Rhyzo-Link 3-10-12-1S	4 gal/a A 167.0 a
5	NACHURS W18-1-02Zn	4 gal/a A 172.0 a
6	NACHURS SRN	1.5 gal/a B 128.5 c
7	NACHURS Finish Line	1 qt/a B 135.1 bc

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Crop Scientific Name	Zea mays inden>	
Crop Name	Dent corn	
Crop Variety	N78S-3111	
Part Rated	GRAIN C	
Rating Date	Oct-1-2015	
Rating Type	YIELD	
Rating Unit	BU	
Sample Size, Unit	1 A	
Number of Subsamples	1	
Days After First/Last Applic.	171 121	
Trt-Eval Interval		
Plant-Eval Interval	171 DP-1	
Days After Emergence	162 DE-1	
ARM Action Codes	TY1	
Number of Decimals	1	
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	5
8 NACHURS Finish Line	2 qt/a B	147.5 abc
LSD P=.05		17.93
Standard Deviation		12.19
CV		8.11
Bartlett's X2		5.692
P(Bartlett's X2)		0.576
Skewness		-0.1509
Kurtosis		-0.7547
Replicate F		0.338
Replicate Prob(F)		0.7979
Treatment F		8.621
Treatment Prob(F)		0.0001



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PLAEME = plant - emerged
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PLANT = plant
GRAIN = grain
C = Crop is Part Rated

Rating Type

STAOBJ = stand - objective (based on counts)
TASSEL = tasseling
DIAMET = diameter
YIELD = yield

Rating Unit

NUMBER = number
DAY50 = days to 50 %
mm = millimeter
lb/plot = pounds per plot
BU = bushel

PLOT = total plot

A = acre

Plant-Eval Interval

25 DP-1 = 1 ZEAMD Apr-13-2015
108 DP-1 = 1 ZEAMD Apr-13-2015
171 DP-1 = 1 ZEAMD Apr-13-2015

ARM Action Codes

TY1 = 4.950396*[C4]