

FIELD EXPERIMENT HISTORY

Title: In-Furrow Biostimulant mixes on corn
Experiment: 11Biologicals **Trial ID:** 6327 **Year:** 2018
Personnel: Joe Lauer, Thierno Diallo, Kent Kohn,
Location: Arlington, WI **County:** Columbia
Supported By: Rosen

Site Information

Field: ARS 373 **Previous Crop:** Soybean **Soil Type:** Plano Silt Loam
Soil Test: Date: 11/12/18 **pH:** 6.6 **OM (%)** 2.6 **P (ppm)** 15 **K (ppm)** 109

Plot Management

Tillage Operations: Spring Field Cultivator 5/16/18

Fertilizer:	Preplant Analysis: 46-0-0	Product Rate lbs/A: 325	Date: 05/16/2018
	Starter Analysis: N/A	Product Rate lbs/A: N/A	Date: N/A
	Post plant Analysis: N/A	Product Rate lbs/A: N/A	Date: N/A
	Manure: N/A		

Herbicide:	2.4D Low Vol 4 @ 16 oz/A 5/8/18 Tomahawk 5 @ 32 oz/A 5/8/18	Insecticide: N/A
		Hybrid: Jung 49SS437RIB

Irrigation: none

Planting Date: 5/25/ 2018 **Planting Depth:** 1.5" **Row Width** 30"

Target Plant Density: 35000 plants per acre **Planting Method:** JD1700 w RTK

Harvest Date: 10/24/18 **Harvest Method:** MF 8XP

Notes: Starter Fertilizer 7-21-7 was used instead of 9-24-3

Experimental Design

Design: RCB	Replications: 4
Plot Size Seeded: 10' x 50'	Experiment Size: 1.0 A
Harvest Plot Size: 5' x 50'	Harvest Plant Density: 34350 plants per acre

Factors/Treatments:

Treatment

- 1) 9-24-3 @ 3 gal/A @ NA
- 2) 9-24-3 @ 3 gal/A IF + DEV DRT @ 8 oz/A IF
- 3) 9-24-3 @ 3 gal/A IF + DEV SMP @ 1% v/v IF
- 4) 9-24-3 @ 3 gal/A IF + DEV MPO @ 0.6 dry oz/A IF
- 5) 9-24-3 @ 3 gal/A IF + DEV MLN @ 1 qt/A IF
- 6) 9-24-3 @ 3 gal/A IF + DEV MLN @ 2 qt/A IF
- 7) 9-24-3 @ 3 gal/A IF + DEV SMP @ 1% v/v IF + DEV MLN @ 1 qt/A IF + DEV AUF @ 12 oz/A IF
- 8) 9-24-3 @ 3 gal/A IF + DEV DRT @ 8 oz/A IF + DEV LRP @ 94 grams/A IF
- 9) 9-24-3 @ 3 gal/A IF + DEV DRT @ 8 oz/A IF + DEV MPO @ 0.6 dry oz/A IF
- 10) 9-24-3 @ 3 gal/A IF + DEV LRP @ 94 grams/A IF + DEV MPO @ 0.6 dry oz/A IF

Results: Table 1811-02

**Table:1811- 02 . In Furrow Biostimulant mixes in corn.
Arlington, WI - 2018.**

Treatment	Yield bu/A	Moisture %	Test weight lbs/bu	Lodged			Harvest density plants/A	AGI \$3.44/bu \$/A
				Total %	Root %	Stalk %		
1) 9-24-3 @ 3 gal/A UTC	179	24.1	50.0	3.6	2.1	1.5	34000	543
2) 9-24-3 @ 3 gal/A + DEV DRT @ 8 oz/A	178	24.8	49.8	0.7	0.7	0.0	34500	538
3) 9-24-3 @ 3 gal/A + DEV SMP @ 1% v/v	171	24.6	50.5	2.3	0.8	1.5	35250	518
4) 9-24-3 @ 3 gal/A + DEV MPO @ 0.6 dry oz/A	180	24.5	49.8	2.0	0.0	2.0	34667	546
5) 9-24-3 @ 3 gal/A + DEV MLN @ 1 qt/A	181	24.4	50.0	0.7	0.7	0.0	34750	550
6) 9-24-3 @ 3 gal/A + DEV MLN @ 2 qt/A	188	23.6	50.4	0.0	0.0	0.0	33000	573
7) 9-24-3 @ 3 gal/A + DEV SMP @ 1% v/v + DEV MLN @ 1 qt/A + DEV AUF @ 12 oz/A	189	24.4	50.1	0.0	0.0	0.0	34000	572
8) 9-24-3 @ 3 gal/A + DEV DRT @ 8 oz/A + DEV LRP @ 94 grams/A	179	24.2	50.5	0.7	0.7	0.0	34250	544
9) 9-24-3 @ 3 gal/A + DEV DRT @ 8 oz/A + DEV MPO @ 0.6 dry oz/A	181	24.3	50.9	3.7	2.2	1.4	35500	550
10) 9-24-3 @ 3 gal/A + DEV LRP @ 94 grams/A + DEV MPO @ 0.6 dry oz/A	188	23.7	50.3	3.5	0.7	2.9	33750	571
Mean	181	24.3	50.2	1.7	0.8	0.9	34366.7	551
Probability(%)								
Treatment (T)	91.4	43.3	80.3	49.7	51.3	71.1	86.4	90.4
LSD(0.10)								
Treatment (T)	NS	NS	NS	NS	NS	NS	NS	NS

*AGI - Adjusted Gross Income.

FIELD EXPERIMENT HISTORY

Title: V4 Biostimulent mixes on corn
Experiment: 11Biologicals **Trial ID:** 6328 **Year:** 2018
Personnel: Joe Lauer, Thierno Diallo, Kent Kohn
Location: Arlington, WI **County:** Columbia
Supported By: Rosen

Site Information

Field: ARS 374 **Previous Crop:** Soybean **Soil Type:** Plano Silt Loam
Soil Test: Date: 11/12/18 **pH:** 6.6 **OM (%)** 2.4 **P (ppm)** 22 **K (ppm)** 131

Plot Management

Tillage Operations: Spring Field Cultivator 5/16/18

Fertilizer:	Preplant Analysis:	46-0-0	Product Rate lbs/A:	325	Date:	5/16/18
	Starter Analysis:	N/A	Product Rate lbs/A:	N/A	Date:	N/A
	Post plant Analysis:	N/A	Product Rate lbs/A:	N/A	Date:	N/A
	Manure:	N/A	Product Rate lbs/A:	N/A	Date:	N/A

Herbicide:	2.4D Low Vol 4 @ 16 oz/A 5/8/18	Insecticide:	N/A
	Tomahawk 5 @ 32 oz/A 5/8/18	Hybrid:	Jung 53SS517RIB

Irrigation:

Planting Date: 5/18/2018 **Planting Depth:** 1.5" **Row Width** 30"

Target Plant Density: 35000 plants per acre **Planting Method:** JD1700 w RTK

Harvest Date: 10/24/18 **Harvest Method:** MF 8XP

Experimental Design

Design: RCB	Replications: 4
Plot Size Seeded: 10' x 50'	Experiment Size: 1.0 A
Harvest Plot Size: 5' x 50'	Harvest Plant Density: 33654 plants per acre

Factors/Treatments:

Treatment

- 1) Check
- 2) DEV DRT @ 8 oz/A @ V4
- 3) DEV EAM @ 32 oz/A @ V4
- 4) DEV MPO @ 0.6 dry oz/A @ V4
- 5) DEV LRP @ 94 grams/A @ V4
- 6) DEV MPO @ 0.6 dry oz/A @ VT
- 7) DEV MPO @ 0.6 dry oz/A @ VT+ DEV LRP @ 94 grams/A @ VT
- 8) DEV DRT @ 8 oz/A @ V4 + DEV MPO @ 0.6 dry oz/A @ V4
- 9) DEV EAM @ 32 oz/A @ V4 + DEV MPO @ 0.6 dry oz/A @ V4
- 10) DEV DRT @ 8 oz/A @ V4 + DEV LRP @ 94 grams/A @ V4
- 11) DEV EAM @ 32 oz/A @ V4 + DEV LRP @ 94 grams/A @ V4
- 12) DEV MPO @ 0.6 dry oz/A @ V4 + DEV LRP @ 94 grams/A @ V4
- 13) DEV MPO @ 0.6 dry oz/A @ V4 + DEV PMC @ 2 grams/A @ V4

Results: Table 1811-03

**Table:1811- 03 . V4 Biostimulent mixes on corn
Arlington, WI - 2018.**

Treatment	Yield bu/A	Moisture %	Test weight lbs/bu	Lodged			Harvest density plants/A	AGI \$3.44/bu \$/A
				Total %	Root %	Stalk %		
1) Check	193	24.7	52.8	0.1	0.0	0.0	34324	583
2) DEV DRT @ 8 oz/A @ V4	197	25.1	52.9	5.8	0.8	5.0	34250	594
3) DEV EAM @ 32 oz/A @ V4	190	24.9	51.5	1.5	0.7	0.8	32250	574
4) DEV MPO @ 0.6 dry oz/A @ V4	195	24.9	52.9	6.5	1.1	5.4	33324	588
5) DEV LRP @ 94 grams/A @ V4	192	24.5	52.7	0.1	0.0	0.0	32991	580
6) DEV MPO @ 0.6 dry oz/A @ VT	196	24.1	52.7	3.0	2.0	0.9	34991	597
7) DEV MPO @ 0.6 dry oz/A @ VT+ DEV LRP @ 94 grams/A @ VT	191	24.8	52.1	0.1	0.0	0.0	32324	577
8) DEV DRT @ 8 oz/A @ V4 + DEV MPO @ 0.6 dry oz/A @ V4	205	24.9	52.6	1.2	0.0	1.0	32991	620
9) DEV EAM @ 32 oz/A @ V4 + DEV MPO @ 0.6 dry oz/A @ V4	189	25.6	51.7	3.7	1.0	2.6	32371	570
10) DEV DRT @ 8 oz/A @ V4 + DEV LRP @ 94 grams/A @ V4	194	24.4	52.1	3.6	0.0	3.6	34750	587
11) DEV EAM @ 32 oz/A @ V4 + DEV LRP @ 94 grams/A @ V4	185	25.4	51.6	6.2	0.0	6.1	32991	557
12) DEV MPO @ 0.6 dry oz/A @ V4 + DEV LRP @ 94 grams/A @ V4	199	24.8	53.7	3.1	1.1	2.0	33991	602
13) DEV MPO @ 0.6 dry oz/A @ V4 + DEV PMC @ 2 grams/A @ V4	186	25.0	52.9	10.2	0.0	10.1	33324	561
Mean	193	24.8	52.5	3.5	0.5	2.9	33452	584
<u>Probability(%)</u>								
Treatment (T)	96.7	75.4	2.8	17.7	49.0	19.9	19.3	96.5
<u>LSD(0.10)</u>								
Treatment (T)	NS	NS	1	NS	NS	NS	NS	NS

*AGI - Adjusted Gross Income.