Summary of rice test 2023

This is a repeat of the test conducted at Memphis Agricultural center in 2022.

We utilized the EA technology, pumps and sprinklers as a solar panel driven water modifier.

In the 2022 test, we measured an increase of between 9% and 17% (4 plots) **or app: 13%.** Increasing the average yield by between 23.3 and 11.2 Bushels per acre.

11.2 Bushels @ $16/bushel = ROI of $180/acre.

This 2023 test was generated to evaluate whether the first result was a fluke or if indeed there was value to the deployment of this relatively inexpensive field irrigation modification.

Test 2023 Results:

In this test we increased yield by 18 Bushels per acre on 3 plots lot vs. 3 plots control or between 10.59 and 24.8 or **an average of 15%.**

18 Bushels @ $16/bushel = ROI of $288/acre.

- **The solar powered technology is simple and practical. It uses no external energy or chemicals.**
- **This technology is suitable for outdoor crops, aquaponics, greenhouses, home gardens and vertical farms.**
- **The plates can be incorporated into existing irrigation systems with no major alterations, and the treated water has a long shelf life making the generated water scalable to the largest farm's back acres.**
- **We have also found great results by foliar or sprinkler systems for pesticide abatement and growth.**
- **Also please find a Percolation test, where we determined that EA water penetrates soil deeper than conventional water by as much as 127%.**

Here are some random shots from the experiment, which incidentally was plagued with unusual rains, some lasting as long as 10 days.

Assorted Photos 2023 Test site Agricenter Memphis

Please review the attached tests (2022 and 2023) raw data. AND Percolation Test

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and Talbott Howard

For Electro-Aeration Inc.

Electro-Aeration™ Inc.
Los Angeles, CA USA

Agricenter International

2023 Electroaeration in Rice

Trial ID: 2023 EA Rice
Protocol ID: 2023 EA Rice Location: Agricenter International Trial Year: 2023
Project ID: Project ID 2: Project ID 3:
Study Director: Sponsor Contact:
Investigator:

Reps: 3 Plots: 5 by 20 feet
Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 3 plots; minimum=0.391 L)

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Appl Description	Amt Product to Measure	Rep 1	2	3
1	EA Well water	15	gal/a	A	Flood water		101	202	301
2	Well water	15	gal/a	A	Flood water		102	201	302

Sort Order: Treatment

Agricenter International

2023 Electroaeration in Rice

Trial ID: 2023 EA Rice
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Investigator:

Status: E established
ARM Trial Created On: 6/1/2023

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

Regulations
Conducted Under GLP: No
Conducted Under GEP: No

Objectives:
to evaluate the effect of electroaeration and its affect on city and well water in rice

Crop Description
Crop 1: C ORYSI Oryza sativa Dry-seeded paddy rice **BBCH Scale:** BRIC
Entry Date: 6/1/2023 **Stage Scale:** BBCH
Variety: PVL03
Attributes: Provisia
Planting Date: 5/31/2023 **Planting Rate:** 75 LB/A
Depth: 0.5 IN
Rows per Plot: 9 **Planting Method:** DRILLE drilled
Row Spacing: 7.5 IN **Planting Equipment:** PD plot drilling machine
Seed Bed: FRIABL friable
Soil Temperature: 72 F **Soil Moisture:** EXCELL excellent
Harvest Date: 11/28/2023 **Harvest Equipment:** Almaco Plot Combine
Harvested Width: 5 FT
% Standard Moisture: 11.0 **Harvested Length:** 30 FT

Site and Design
Treated Plot Width: 5 FT **Site Type:** FIELD field
Treated Plot Length: 20 FT
Treated Plot Area: 100.0 FT2 **Tillage Type:** CONTIL conventional-till
Replications: 3 **Treatments:** 2 **Plots:** 6 **Study Design:** RACOBL Randomized Complete Block (RCB)
Distance between Blocks: 1 FT
Distance between 'Plot' Experimental Units: 0.5 FT

Soil Description
Description Name: 2023 Rice Field
% Sand: 29.6 **% OM:** 1.8 **Texture:** SIL silt loam
% Silt: 51.6 **Soil Name:** Falaya silt loam
% Clay: 18.6 **Fert. Level:** G good
pH: 6.3 **CEC:** 7.6
Soil Drainage: G good

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale	ORYSI, BRIC

Notes

Context	Date	By	Notes
STATUS	6/1/2023	Ashley Barth	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	6/1/2023	Ashley Barth	Automatically added by ARM: Status changed to: E: changed by (XAGBAL).
STATUS	6/1/2023	Ashley Barth	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

Agricenter International

2023 Electroaeration in Rice

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Project ID: Project ID 2: Project ID 3:
Study Director: Sponsor Contact:
Investigator:

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	1	2	3	4	5
	Rating Date					11/28/2023	11/28/2023	11/28/2023	11/28/2023	11/28/2023
	Part Rated					PLAEME, C	GRAIN, C	GRAIN, C	GRAIN, C	GRAIN, C
	Rating Type					HEIGHT	MOICON	WEIGHT	WEITES	YIELD
	Rating Unit/Min/Max					IN, -, -	%, 0, 100	lb/plot, -, -	%, 0, 100	BU, -, -
	Sample Size						1 PLOT	1 PLOT	1 PLOT	1 A
	Number of Subsamples					1	1	1	1	1
	Plant-Eval Interval					181 DP-1	181 DP-1	181 DP-1	181 DP-1	181 DP-1
	ARM Action Codes									TY1
	Number of Decimals									1
1	EA Well water	15	gal/a	A	101	25.0	6.4700	24.7650	45.0000	168.0
					202	24.0	5.8600	23.9650	46.0050	163.6
					301	25.0	5.8150	21.6900	48.6350	148.1
					Mean =	24.7	6.0483	23.4733	46.5467	159.9
2	Well water	15	gal/a	A	102	24.0	6.0350	22.2900	48.2900	151.9
					201	23.0	5.4550	20.2600	48.2500	138.9
					302	22.0	6.0100	19.8200	45.1600	135.1
					Mean =	23.0	5.8333	20.7900	47.2333	141.9

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

Rating Type
HEIGHT = height
MOICON = moisture content
WEIGHT = weight
WEITES = weight - test
YIELD = yield

Rating Unit/Min/Max
IN, , = inch
%, 0, 100 = percent
lb/plot, , = pounds per plot
BU, , = bushel

PLOT = total plot
A = acre

Plant-Eval Interval
181 DP-1 = 1 ORYSI 5/31/2023

ARM Action Codes
TY1 = 6.45333333*[C3]*(100-[C2])/89

Agricenter International

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Protocol ID: 2023 EA Rice Location: Agricenter International Trial Year: 2023
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	Rating Date				11/28/2023	11/28/2023	11/28/2023	11/28/2023	11/28/2023
	Part Rated				PLAEME, C	GRAIN, C	GRAIN, C	GRAIN, C	GRAIN, C
	Rating Type				HEIGHT	MOICON	WEIGHT	WEITES	YIELD
	Rating Unit/Min/Max				IN, -, -	%, 0, 100	lb/plot, -, -	%, 0, 100	BU, -, -
	Sample Size					1 PLOT	1 PLOT	1 PLOT	1 A
	Number of Subsamples				1	1	1	1	1
	Plant-Eval Interval				181 DP-1	181 DP-1	181 DP-1	181 DP-1	181 DP-1
	ARM Action Codes								TY1
	Number of Decimals								1
1	EA Well water	15	gal/a	A	24.7 -	6.0483 -	23.4733 a	46.5467 -	**159.9 a**
2	Well water	15	gal/a	A	23.0 -	5.8333 -	20.7900 b	47.2333 -	**141.9 b**
	LSD P=.05				2.87	0.88283	2.32285	9.04670	15.01
	Standard Deviation				0.82	0.25130	0.66120	2.57513	4.27
	CV				3.43	4.23	2.99	5.49	2.83
	Grand Mean				23.83	5.94083	22.13167	46.89000	150.92
	Levene's F^				0.00	0.00	0.00	0.00	0.00
	Levene's Prob(F)				1.00	1.00	1.00	1.00	1.00
	Rank X2				.	.	.	.	.
	P(Rank X2)				.	.	.	.	.
	Shapiro-Wilk^				0.9129	0.9269	0.9338	0.9471	0.9471
	P(Shapiro-Wilk)^				0.4558	0.556	0.6099	0.7167	0.7167
	Skewness^				0.0	0.0	0.0	0.0	0.0
	P(Skewness)^				1.0	1.0	1.0	1.0	1.0
	Kurtosis^				-1.875	-1.875	-1.875	-1.875	-1.875
	P(Kurtosis)^				0.4245	0.4245	0.4245	0.4245	0.4245
	Replicate F				1.000	2.822	8.793	0.018	9.193
	Replicate Prob(F)				0.5000	0.2616	0.1021	0.9827	0.0981
	Treatment F				6.250	1.098	24.705	0.107	26.464
	Treatment Prob(F)				0.1296	0.4047	0.0382	0.7750	0.0358

Part Rated
PLAEME = plant - emerged
GRAIN = grain
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Rating Type
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YIELD = yield

Rating Unit/Min/Max
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lb/plot, , = pounds per plot
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PLOT = total plot
A = acre

Plant-Eval Interval
181 DP-1 = 1 ORYSI 5/31/2023

ARM Action Codes
TY1 = 6.45333333*[C3]*(100-[C2])/89

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.
^Calculated from residual.