



Reddick Farms: Our family's Regenerative journey

Joel Reddick



Our family



The Reddick Family

Jordan, Amy & Brad, Ginger & Larry, Joel & Makena, Jacob





Why we use No-till and Cover Crops



1. Erosion



31st Annual
NATIONAL
NO-TILLAGE
CONFERENCE

January 10-13, 2023 • St. Louis, Mo.

Yetter
FARM EQUIPMENT
SINCE 1930

Ag Leader

exapta.
solutions, inc.

**Precision
Planting**

MonTag

**The
Andersons**

GS3
GS3 QUALITY
SEED

Sound

Martin Till

**MidWest
Bio-Tech**



**L
LAForge**

wearparts
TILLAGE TOOLS

Cultivating Solutions for Growth

DAWN

2. Water Infiltration

Run off water in same rain event



Neighbor's field



Our field



Chemical control



Cover crop control



3. Weeds



4. Maintaining fertility



What tools do we use to address these problems?



1. Cover crops



2. Roller crimper



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3. Soil/plant testing

HANEY SOIL HEALTH ANALYSIS

Lab #	Nitrogen									Phosphorus					
	H3A Extract			H2O Extract						H3A Extract					
	Nitrate ppm NO3-N	Ammonium ppm NH4-N	Inorg. N ppm N	Total N ppm N	Org. N ppm N	Org. N: Inorg. N	Org. N Rel. ppm N	Org. N Res. ppm N	Avail. N lbs/A	Total P ppm P	Inorg. P ppm PO4-P	Org. P ppm P	Org. P Rel ppm P	Org. P Res. ppm P	Avail. P lbs/A
4227	5.0	4.6	9.6	26.4	19.0	2.54	19.0	0.0	51.4	23.0	20.9	2.1	2.1	0.0	52.9
Rank															

Lab #	Other Soil Measures					Fertility									
						H3A Extract									
	Soil pH 1:1	Buffer pH Mod. WDRF	Soluble Salt mmho/cm	Excess Lime	Soil OM % LOI	Potassium ppm K	Calcium ppm Ca	Magnesium ppm Mg	Sodium ppm Na	Zinc ppm Zn	Manganese ppm Mn	Iron ppm Fe	Copper ppm Cu	Aluminum ppm Al	Sulfur ppm S
4227	6.3	6.7	0.16	NONE	2.9	38	527	49	16	1.34	41.4	73	0.85	124	4.24
Rank															

Lab #	Soil Health					Nitrogen Comparison				Reviewer Comments
	H2O Extract					Traditional N lbs/A	Haney N lbs/A	Differ. N lbs/A	Savings N \$/A	
	Soil Resp. ppm CO2-C	Org. C ppm C	MAC %	C:N	SHC					
4227	76.8	196	39.1	10.36	13.50	40% Legume 60% Grass	9.0	51.4	42.4	44.06
Rank										

Lab #	Intended		N Credits, lbs/A			Fertility Recommendations, lbs of Required Nutrients per Acre									
	Crop	Yield Goal	Past Crop	Subsoil	Haney	N	P2O5	K2O	S	Zn	Mg	Fe	Mn	Cu	Lime T/A
4227	CORN BU/A	200	40		51.4	125	30	55	20	-	-	-	-	-	-
4227	SOYBEANS BU/A	60	40		51.4	-	20	50	9	-	-	-	-	-	-



Account No.: 136
 Invoice No.:
 Date Received: 4/29/2022
 Date Reported: 5/3/2022

Name: BRAD REDDICK
 Company:
 Address: 414 COUNTY RD 1101
 City, State, ZIP: BORDWELL, KY 42023

Grower: BRAD REDDICK
 Field ID: UNDERWOOD
 Sample ID 1: 1
 Sample ID 2: -

COVER CROP ANALYSIS REPORT

Lab # 83

Type: CC

Stage: N/A

Forage Yield, Ton/A @ 100 % Dry Matter

Wet Wt, g 2175.1
 Tare wt, g Tons DM/A 2.60
 % Dry Matter 16.2
 Area Sampled 6.5 C:N Ratio 22.0

Results on a Dry Basis

Nutrient	Value	Units
Carbon	44.84	% C
Nitrogen	2.036	% N
Phosphorus	0.33	% P
Potassium	2.66	% K
Calcium	0.66	% Ca
Magnesium	0.14	% Mg
Sulfur	0.14	% S
Zinc	43.66	ppm Zn
Iron	817.02	ppm Fe
Manganese	97.67	ppm Mn
Copper	8.83	ppm Cu
Boron	14.01	ppm B
Molybdenum	0.76	ppm Mo
Aluminum	405.14	ppm Al

lbs/A of Nutrient based on Tons DM/A

Nutrient	lbs /A	Units
Carbon	2332	C
Nitrogen	106	N
Phosphorus	39.3	P2O5
Potassium	165.8	K2O
Calcium	34.5	Ca
Magnesium	7.1	Mg
Sulfur	7.4	S
Zinc	0.227	Zn
Iron	4.250	Fe
Manganese	0.508	Mn
Copper	0.046	Cu
Boron	0.073	B
Molybdenum	0.004	Mo
Aluminum	2.107	Al





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City, State, ZIP:	BARDWELL, KY 42023

Grower:	BRAD REDDICK
Field ID:	UNDERWOOD
Sample ID 1:	2
Sample ID 2:	-
Sample Depth:	0-6

PLFA ANALYSIS REPORT

Lab # 4227

	Value	Rank	Overall Rank
Total Biomass, PLFA ng/g soil	9073.85	EXCELLENT	GOOD - VERY GOOD
Functional Group Diversity Index	1.516	VERY GOOD	

Community Breakdown			
Functional Group	Value	Units	% of Total Biomass
Total Bacteria	4355.08	PLFA ng/g	48.00
Gram +	1762.16	PLFA ng/g	19.42
Actinomycetes	784.99	PLFA ng/g	8.65
Gram -	1807.93	PLFA ng/g	19.92
Total Fungi	1016.36	PLFA ng/g	11.20
Arbuscular Mycorrhizal	371.20	PLFA ng/g	4.09
Saprophytic	645.16	PLFA ng/g	7.11
Protozoa	98.19	PLFA ng/g	1.08
Undifferentiated	3604.23	PLFA ng/g	39.72

Ratios		
Community	Value	Rank
Fungi:Bacteria	0.2334	ABOVE AVERAGE
Protozoa:Bacteria	0.0225	EXCELLENT
Gram+:Gram-	1.4089	IDEAL
Stress Indicators		
Sat:Unsat	1.6877	LOW
Mono:Poly	9.0595	LOW
Pre 16:Cyclo 17	All Pre16:1	VERY ACTIVE
Pre 18:Cyclo 19	14.5832	ACTIVE



Other ideas we have pursued

- Non-Gmo Crops
- Ecosystem balancing
- Integrating livestock
- 60-inch corn
- Interseeding cover crops
- Strip till

