REPORT NUMBER
25-141-0118
COMPLETED DATE
May 23, 2025
ACCOUNT
78911
RECEIVED DATE
May 21, 2025

Midwest Laboratories®
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www.midwestlabs.com

TODAY'S DATE
May 23, 2025

Third Great Farm
Eric Hanson
10156 e ridott rd
pecatonica IL 61063

IDENTIFICATION
ERIC HANSON
THIRD GREAT FARM
NORTHWEST - SARE SITE

SOIL ANALYSIS REPORT

INFO SHEET: 1816968

LAB NUMBER *451*	SAMPLE IDENTIFICATION	ORGANIC MATTER L.O.I. percent	RATE	PHOSPHORUS P1 (WEAK BRAY) 1:7 ppm	RATE	PHOSPHORUS P2 (STRONG BRAY) 1:7 ppm	RATE	OLSEN BICARBONATE P ppm	RATE	NEUTRAL AMMONIUM ACETATE (EXCHANGEABLE) POTASSIUM K ppm	RATE	MAGNESIUM Mg ppm	RATE	CALCIUM Ca ppm	RATE	SODIUM Na ppm	RATE	pH SOIL pH 1:1	BUFFER INDEX	CATION EXCHANGE CAPACITY C.E.C. meq/100g	PERCENT BASE SATURATION (COMPUTED) % K	% Mg	% Ca	% H	% Na
61857	001	6.1	VH	167	VH	168	VH			420	VH	776	VH	2748	M	8		7.4		21.3	5.1	30.4	64.3	0.0	0.2

LAB NUMBER *451*	NITRATE-N (FIA) SURFACE ppm	SURFACE lbs/A	SURFACE depth (in)	SUBSOIL 1 ppm	SUBSOIL 1 lbs/A	SUBSOIL 1 depth (in)	SUBSOIL 2 ppm	SUBSOIL 2 lbs/A	SUBSOIL 2 depth (in)	Total lbs/A	SULFUR S ICAP ppm	RATE	ZINC Zn DTPA ppm	RATE	MANGANESE Mn DTPA ppm	RATE	IRON Fe DTPA ppm	RATE	COPPER Cu DTPA ppm	RATE	BORON B SORB. DTPA ppm	RATE	EXCESS LIME RATE	SOLUBLE SALTS 1:1 mmhos/cm	RATE
61857	11	20	0-6							20	6	VL	8.5	VH	8	L	49	VH	1.2	M	0.8	M	L	0.3	L

REV.10/17

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SOIL HEALTH ASSESSMENT

ANALYTICAL LABORATORY FINDINGS

SAMPLE IDENTIFICATION	001
LABORATORY NUMBER	45161857

ANALYTE	UNITS	RESULTS	LOW MEDIUM OPTIMUM VERY HIGH
H3A EXTRACTION			
ORTHOPHOSPHATE-P	ppm	100.8	
PHOSPHORUS	ppm	111	
POTASSIUM	ppm	139	
MAGNESIUM	ppm	285	
CALCIUM	ppm	470	
SODIUM	ppm	8	
IRON	ppm	84	
ALUMINUM	ppm	47	
WATER SOLUBLE			
NITRATE-N	ppm	13	
AMMONIACAL-N	ppm	2.0	
ORTHOPHOSPHATE-P	ppm	10.37	
CARBON	ppm	196.7	
TOTAL NITROGEN	ppm	26.6	
1 DAY CO_2C BURST		228.00	
ORGANIC CARBON	ppm	196.7	
ORGANIC NITROGEN	ppm	11.6	
ORGANIC C/N RATIO		17.0	

ADDITIONAL NITROGEN CREDIT IDENTIFIED VIA HANEY TEST: **27**

NITROGEN RECOMMENDATIONS MAY INCLUDE ADDITIONAL NITROGEN CREDITS BASED ON PREVIOUS CROPS AND NITROGEN MINERALIZATION RATES.

The above analytical results apply only to the sample(s) submitted. Samples are retained a maximum of 30 days.

SOIL HEALTH CALCULATION

The **H3A Soil Extractant** was developed by Haney*. This extract is designed to mimic organic acids produced by living plant root systems. These organic acids increase nutrient availability in the root zone.

The **Water Soluble Extract** provides a snapshot of nutrients that are immediately available to the plants.

The **CO_2 Burst** test is very good indicator of soil health. This test measures the amount of CO_2 naturally released from the soil due to the activity of the soil microbes through microbial respiration. This test is very dependent on the amount of carbon that is available to the soil microbes and the form that the carbon is in. As the available carbon increases in your soil the Microbial respiration will increase.

Organic Carbon is the available total water extractable organic carbon from your soil. This pool of carbon is roughly 80 times smaller than the Soil Organic Matter. The organic carbon pool reflects the energy/food source that is driving the soil microbes.

The **Organic Nitrogen** pool is replenished by fresh plant residues, manure, composts, and dying soil microbes.

The **Organic C/N ratio** is a critical component of the nutrient cycle. A soil C/N ratio above 20 generally indicates that Nitrogen will be tied up and not available to plants. The ideal range for the Organic C/N ratio will be from 8:1 to 15:1.

The **Soil Health Calculation** uses the CO_2 Burst, Organic Carbon, Organic Nitrogen, and the C/N ratio to generate the soil health number. This calculation looks at the balance of soil carbon and nitrogen and their relationship to microbial activity. This number represents the overall health of your system. Soil values will range from 0 to 25. A soil with a value below 7 would be considered low. You want to see this number increase as you make changes and adjustments. Keeping track of this number will allow you to gauge the effects of your management practices over time.

*Modifications to the New Soil Extractant H3A-1: A Multinutrient Extractant
R.L. Haney (a); E.B. Haney (b); L.R. Hossner (c); J.G. Arnold (a)