

RESEARCH FOR RESULTS



SoilBiotics Digester Shows How To Profit from Residue!

This is a report from a SoilBiotics customer in 2022. It shows soil test results for side-by-side rows in six sections of three different field areas provided by a central Illinois grower. In early November 2021 an application of **DgradeR+** was applied to corn stalk residue on 200' passes. The SoilBiotics treated row is the last one on each soil test report, with Control being either Row 1 or Rows 1& 2 (for tests with three samples.) The fields were tilled with a high-speed disc. Soil samples were taken on 8/3/2022 for analysis. **The six soil tests are shown and then a Summary of results is provided.**

Test 1



Soil Testing for
Precision Agriculture

Soil Test Report

Order 45461

Report Date 08/09/2022
File 215.1
No. of Samples 2
Collected 08/03/2022
Received 08/03/2022
Analyzed 08/05/2022

23877 E 00 N Rd, Cropsey, IL 61731, USA
 309-377-2851 (O)

#	Lab ID	pH units	pH * Buffer	LOI %	P lb/ac	K lb/ac	Ca lb/ac	Mg lb/ac	CEC * meq/100g	K * % sat.	Ca * % sat.	Mg * % sat.	H * % sat.	S ppm	Zn ppm	Mn ppm	Fe ppm	Cu ppm	B ppm	Na ppm
1	2096885	6.6	7.0	4.4	25	234	6,232	1,396	21.7	1.4	71.8	26.8	0.0	8	1.1	27	116	1.9	1.0	50
2	2096886	7.0	7.0	5.3	119	420	6,926	1,408	23.7	2.3	73.0	24.7	0.0	17	2.0	43	133	1.9	1.6	50
Average		6.8	7.0	4.9	72	327	6,579	1,402	22.7	1.8	72.4	25.8	0.0	12	1.5	35	124	1.9	1.3	50

* indicates calculated parameter; % sat.: % base saturation
 Tests performed by GMS Lab.

Test 2



Soil Testing for
Precision Agriculture

Soil Test Report

Order 45462

Report Date 08/09/2022
File 215.1
No. of Samples 2
Collected 08/03/2022
Received 08/03/2022
Analyzed 08/05/2022

23877 E 00 N Rd, Cropsey, IL 61731, USA
309-377-2851 (O)

#	Lab ID	pH units	pH * Buffer	LOI %	P lb/ac	K lb/ac	Ca lb/ac	Mg lb/ac	CEC * meq/100g	K * % sat.	Ca * % sat.	Mg * % sat.	H * % sat.	S ppm	Zn ppm	Mn ppm	Fe ppm	Cu ppm	B ppm	Na ppm
1	2096887	7.8	7.0	4.9	98	481	9,885	699	28.2	2.2	87.5	10.3	0.0	12	4.0	28	147	2.2	1.2	48
2	2096888	6.6	7.0	5.0	177	996	6,433	1,186	22.3	5.7	72.1	22.2	0.0	10	5.8	19	223	2.2	1.6	44
Average		7.2	7.0	4.9	138	738	8,159	942	25.3	4.0	79.8	16.2	0.0	11	4.9	23	185	2.2	1.4	46

* indicates calculated parameter; % sat.: % base saturation
Tests performed by GMS Lab.

Test 3



Soil Testing for
Precision Agriculture

Soil Test Report

Order 45463

Report Date 08/09/2022
File 215.1
No. of Samples 3
Collected 08/03/2022
Received 08/03/2022
Analyzed 08/05/2022

23877 E 00 N Rd, Cropsey, IL 61731, USA
309-377-2851 (O)

#	Lab ID	pH units	pH * Buffer	LOI %	P lb/ac	K lb/ac	Ca lb/ac	Mg lb/ac	CEC * meq/100g	K * % sat.	Ca * % sat.	Mg * % sat.	H * % sat.	S ppm	Zn ppm	Mn ppm	Fe ppm	Cu ppm	B ppm	Na ppm
1	2096889	7.0	7.0	4.5	60	434	5,262	849	17.2	3.2	76.3	20.5	0.0	9	2.6	54	122	1.7	1.1	49
2	2096890	6.1	6.7	4.4	87	410	4,556	675	14.7	3.6	77.3	19.1	0.1	8	1.5	22	159	1.4	0.8	48
3	2096891	6.5	7.0	5.6	68	447	7,009	1,046	22.5	2.6	78.0	19.4	0.0	8	2.0	23	174	2.3	1.4	50
Average		6.5	6.9	4.9	72	430	5,609	857	18.1	3.1	77.2	19.7	0.0	9	2.0	33	152	1.8	1.1	49

* indicates calculated parameter; % sat.: % base saturation
Tests performed by GMS Lab.



Soil Testing for
Precision Agriculture

23877 E 00 N Rd, Cropsey, IL 61731, USA
309-377-2851 (O)

Test 4

Soil Test Report

Order 45464

Report Date 08/09/2022
File 215.1
No. of Samples 2
Collected 08/03/2022
Received 08/03/2022
Analyzed 08/05/2022

#	Lab ID	pH units	pH * Buffer	LOI %	P lb/ac	K lb/ac	Ca lb/ac	Mg lb/ac	CEC * meq/100g	K * % sat.	Ca * % sat.	Mg * % sat.	H * % sat.	S ppm	Zn ppm	Mn ppm	Fe ppm	Cu ppm	B ppm	Na ppm
1	2096892	5.6	6.2	3.0	30	97	4,194	707	13.6	0.9	77.1	21.7	0.3	6	1.2	19	173	1.5	0.9	53
2	2096893	7.4	7.0	3.1	107	249	5,823	789	18.2	1.8	80.1	18.1	0.0	7	1.7	62	131	1.7	0.9	25
Average		6.5	6.6	3.1	69	173	5,009	748	15.9	1.3	78.6	19.9	0.1	7	1.5	40	152	1.6	0.9	39

* indicates calculated parameter; % sat.: % base saturation
Tests performed by GMS Lab.

Test 5

Soil Test Report

Order 45468

Report Date 08/09/2022
File 215.1
No. of Samples 2
Collected 08/03/2022
Received 08/03/2022
Analyzed 08/05/2022



Soil Testing for
Precision Agriculture

23877 E 00 N Rd, Cropsey, IL 61731, USA
309-377-2851 (O)

#	Lab ID	pH units	pH * Buffer	LOI %	P lb/ac	K lb/ac	Ca lb/ac	Mg lb/ac	CEC * meq/100g	K * % sat.	Ca * % sat.	Mg * % sat.	H * % sat.	S ppm	Zn ppm	Mn ppm	Fe ppm	Cu ppm	B ppm	Na ppm
1	2096900	6.9	7.0	4.5	82	317	6,323	1,045	20.6	2.0	76.9	21.2	0.0	8	2.6	34	179	3.0	1.6	47
2	2096901	6.1	6.7	5.1	110	509	5,802	783	18.4	3.5	78.7	17.7	0.1	10	2.6	26	207	3.0	1.3	42
Average		6.5	6.8	4.8	96	413	6,063	914	19.5	2.8	77.8	19.4	0.0	9	2.6	30	193	3.0	1.4	45

* indicates calculated parameter; % sat.: % base saturation
Tests performed by GMS Lab.



Soil Testing for
Precision Agriculture

23877 E 00 N Rd, Cropsey, IL 61731, USA
309-377-2851 (O)

Test 6 Soil Test Report

Order **45469**
Report Date 08/09/2022
File 215.1
No. of Samples 2
Collected 08/03/2022
Received 08/03/2022
Analyzed 08/05/2022

#	Lab ID	pH units	pH * Buffer	LOI %	P lb/ac	K lb/ac	Ca lb/ac	Mg lb/ac	CEC * meq/100g	K * % sat.	Ca * % sat.	Mg * % sat.	H * % sat.	S ppm	Zn ppm	Mn ppm	Fe ppm	Cu ppm	B ppm	Na ppm
1	2096902	7.0	7.0	4.7	33	252	6,757	1,437	23.2	1.4	72.8	25.8	0.0	7	1.9	30	170	2.5	1.7	44
2	2096903	6.8	7.0	4.7	100	385	7,695	1,402	25.6	1.9	75.2	22.8	0.0	8	1.7	31	148	2.5	1.7	43
Average		6.9	7.0	4.7	67	319	7,226	1,419	24.4	1.7	74.0	24.3	0.0	8	1.8	30	159	2.5	1.7	44

* indicates calculated parameter; % sat.: % base saturation
Tests performed by GMS Lab.

Summary: The soil test results show that application of **DgradeR+** resulted in a greater breakdown of residue than the untreated Control, and therefore a greater increase in soil fertility.

Estimated Organic Material (**OM**) content in the soil (**shown as LOI on charts**) averaged 4.8% for treated rows vs. 4.325% for the Control rows, **an 11% increase!**

Comparison of Primary Nutrient Results:

The **DgradeR+** P levels averaged 113.5 pounds per acre vs. 57 lbs. per acre for Control.

The **DgradeR+** K levels averaged 500.5 pounds per acre vs. 300.5 lbs. per acre for Control.

The **DgradeR+** Ca levels averaged 6615 pounds per acre vs. 6383 lbs. per acre for Control.

The **DgradeR+** Mg levels averaged 1102 pounds per acre vs. 1008 lbs. per acre for Control.

These tests show that growers utilizing an effective residue digestion product can see significant, low-cost increases in soil fertility from existing organic matter!