

RESEARCH FOR RESULTS



SoilBiotics Residue Digester Shows Huge Benefits

This is a report from a SoilBiotics representative for a customer in 2020. It shows soil test results of a side by side comparison of 120 foot swaths in Alvin fine sandy loam soils. In early November 2019 an application of SoilBiotics **DgradeR+** was applied to corn stalk residue on 120' passes. Every other pass was a check with no treatment. The treatment was left on the surface with no incorporation. The nutrient results, therefore are mostly from breakdown of the surface organic matter. Soybeans (Pioneer Xtend 4.0 maturity) were planted on April 7, 2020. Soil samples were taken on 6/12/2020 and 6/22/2020 for analysis. The first **Test** soil sample (#1 in Table 1 below) was taken 60 feet into the residue digester side. The first **Check** soil sample (#2 in Table 1 below) was taken from the other 120 foot swath at 60 feet in and is the untreated control.

Table 1



Soil Testing for Precision Agriculture

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

Soil Test Report

Dealer: GMS Lab
Client: Greg L Brown
Farm: Langford
Field: Langford

Order: 41266

Report Date: 06/16/2020
File: 164.1
No. of Samples: 2
Collected: 06/12/2020
Received: 06/12/2020
Analyzed: 06/15/2020

#	Lab ID	pH Water	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	2021401	6.9	7.0	1.4	203	326	2,004	351	6.9	6.1	72.7	21.2	0.0	9	5.0	205	188	0.8	0.4	41
2	2021402	6.9	7.0	1.2	173	183	1,260	236	4.4	5.4	72.1	22.5	0.0	6	3.7	108	135	0.3	0.2	42
Average		6.9	7.0	1.3	188	254	1,632	294	5.6	5.7	72.4	21.9	0.0	7	4.4	157	162	0.6	0.3	41

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

The second **Test** soil sample was taken from three rows (#1, #3, #5 in Table 2 below) also 60 feet into the **DgradeR+** side. The second **Check** soil sample (#2, #4, #6 in Table 2 below) was taken from the other 120 foot swath at 60 feet in and is the untreated control.

Table 2



Soil Testing for
Precision Agriculture

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

Soil Test Report

Dealer GMS Lab
Client Greg L Brown
Farm Langford
Field Langford

Order **41306**

Report Date 06/24/2020
File 174.1
No. of Samples 6
Collected 06/22/2020
Received 06/22/2020
Analyzed 06/23/2020

#	Lab ID	pH Water	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	2021763	6.6	7.0	1.4	192	342	2,259	291	7.3	6.0	77.4	16.6	0.0	10	5.0	240	189	1.0	0.6	31
2	2021764	6.7	7.0	1.0	134	240	1,313	207	4.5	6.9	73.7	19.4	0.0	8	3.6	139	149	0.3	0.4	29
3	2021765	7.0	7.0	1.8	175	259	2,371	368	7.8	4.3	76.1	19.7	0.0	8	4.5	190	168	0.7	0.8	31
4	2021766	7.1	7.0	1.3	156	215	2,081	334	6.9	4.0	75.7	20.3	0.0	11	5.0	139	154	0.5	0.4	20
5	2021767	7.2	7.0	1.4	206	228	2,231	360	7.4	4.0	75.7	20.4	0.0	14	6.7	186	177	0.7	0.7	37
6	2021768	7.2	7.0	1.0	178	189	1,769	345	6.1	4.0	72.5	23.5	0.0	10	6.1	127	151	0.4	0.6	44
Average		6.9	7.0	1.3	173	246	2,004	317	6.6	4.9	75.2	20.0	0.0	10	5.2	170	165	0.6	0.6	32

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

Summary: Soybeans were harvested on 10/3/2020. The customer reported a **10.15 bushel increase from check to treatment**. Cash soybeans at local elevator on the day of harvest were \$10.31/bu, resulting in an **ROI of \$104.65/A**. The soil test results show that application of **DgradeR+** resulted in a phenomenal breakdown of residue and increase in soil fertility. Organic Material (**OM**) content in the soil (shown as LOI on charts) averaged 1.53% for treated rows vs. 1.10% for the check rows, a **39% increase!** These tests show that growers utilizing an effective residue digestion product can see significant, low-cost increases in soil fertility from existing organic matter with corresponding increases in total ROI from higher crop yields!