



Ag Testing - Consulting

Account No. : 21567

**Biological Soil Analysis Report**

**HATZENBUHLER, CODY**  
GRANT COUNTY SOIL CONSERVATION SE  
PO BOX 257  
CARSON ND 58529-0257

Invoice No. : 1208571  
Date Received : 05/20/2016  
Date Reported : 05/24/2016  
Lab No. : 3821

Results For : DREW GAUGLER  
Sample ID 1 : 28-131-90  
Sample ID 2 : PASTURE 60

**Haney - Soil Health Analysis**

<b>1:1 Soil pH</b>	6.2	ICAP Aluminum, ppm Al	517.50
<b>1:1 Soluble Salts, mmho/cm</b>	0.15	ICAP Iron, ppm Fe	230.5
<b>Excess Lime Rating</b>	1		
<b>Organic Matter, %LOI</b>	3.9	<b>Calculations</b>	
<b>WDRF Buffer pH</b>	6.6	Organic C:Organic N	10.9
<b>Solvita CO2 Burst</b>		Nitrogen mineralization, ppm N	17.4
CO2-C, ppm C	102.0	Organic Nitrogen Release, ppm N	18.6
		Organic Nitrogen Reserve, ppm N	0.0
<b>Water Extract</b>		Phosphorus mineralization, ppm P	5.8
Total Nitrogen, ppm N	22.5	Organic Phosphorus Reserve, ppm P	< 0.1
Organic Nitrogen, ppm N	18.6	Phosphorus Saturation Al/ Fe, %	1.0
Total Organic Carbon, ppm C	203	Phosphorus Saturation Ca, %	2.9
<b>H3A Extract</b>		<b>Soil Health</b>	
Nitrate, ppm NO3-N	1.3	Soil Health Calculation	13.24
Ammonium, ppm NH4-N	4.1	Cover Crop Suggestion	40% Legume 60% Grass
Inorganic Nitrogen, ppm N	5.5		
Inorganic (FIA) Phosphorus, ppm P	1.8		
Total (ICAP) Phosphorus, ppm P	8		
Organic Phosphorus, ppm P	5.8		
ICAP Potassium, ppm K	117		
ICAP Calcium, ppm Ca	258		

Reviewed By : Lance Gunderson

5/24/2016

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4007 Cherry Ave., P.O. Box 788  
Kearney, Nebraska 68848-0788



Laboratories, Inc.

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Haney - Soil Health Analysis Contd.

Lab No. : 3821

Nutrient Quantity Available for Next Crop

Nitrogen Savings by using the Haney Test

Table with 4 columns: Nutrient, Quantity, Evaluation Method, and Savings. Rows include Nitrogen, Phosphorus, Potassium, and Nutrient Value.

Fertilizer Recommendations, lbs/A

Table with 6 columns: Crop, Yield Goal, Nitrogen N, Phosphorus P2O5, Potassium K2O, and Lime, ECC T/A. Rows list Cover Crop Mix with yield goals of 1, 1.25, and 1.50.



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Results For : DREW GAUGLER  
Sample ID 1 : 28-131-90  
Sample ID 2 : PASTURE 61

**Haney - Soil Health Analysis**

<b>1:1 Soil pH</b>	7.0	ICAP Aluminum, ppm Al	346.40
<b>1:1 Soluble Salts, mmho/cm</b>	0.20	ICAP Iron, ppm Fe	164.1
<b>Excess Lime Rating</b>	1		
<b>Organic Matter, %LOI</b>	3.2	<b>Calculations</b>	
		Organic C:Organic N	10.6
		Nitrogen mineralization, ppm N	18.5
<b>Solvita CO2 Burst</b>		Organic Nitrogen Release, ppm N	18.5
CO2-C, ppm C	128.0	Organic Nitrogen Reserve, ppm N	0.0
<b>Water Extract</b>		Phosphorus mineralization, ppm P	4.1
Total Nitrogen, ppm N	23.0	Organic Phosphorus Reserve, ppm P	< 0.1
Organic Nitrogen, ppm N	18.5	Phosphorus Saturation Al/ Fe, %	1.2
Total Organic Carbon, ppm C	195	Phosphorus Saturation Ca, %	2.8
<b>H3A Extract</b>		<b>Soil Health</b>	
Nitrate, ppm NO3-N	1.6	Soil Health Calculation	15.92
Ammonium, ppm NH4-N	4.4	Cover Crop Suggestion	30% Legume 70% Grass
Inorganic Nitrogen, ppm N	6.0		
Inorganic (FIA) Phosphorus, ppm P	1.8		
Total (ICAP) Phosphorus, ppm P	6		
Organic Phosphorus, ppm P	4.1		
ICAP Potassium, ppm K	143		
ICAP Calcium, ppm Ca	212		

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Haney - Soil Health Analysis Contd.

Lab No. : 3822

Nutrient Quantity Available for Next Crop

Nitrogen Savings by using the Haney Test

Table with 4 columns: Nutrient, Quantity, Evaluation Type, and Value. Rows include Nitrogen, Phosphorus, Potassium, and Nutrient Value.

Fertilizer Recommendations, lbs/A

Table with 6 columns: Crop, Yield Goal, Nitrogen N, Phosphorus P2O5, Potassium K2O, and Lime, ECC T/A. Rows list Cover Crop Mix with yield goals of 1, 1.25, and 1.50.



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Results For : DREW GAUGLER  
Sample ID 1 : 28-131-90  
Sample ID 2 : ALFALFA

**Haney - Soil Health Analysis**

<b>1:1 Soil pH</b>	6.6	ICAP Aluminum, ppm Al	382.20
<b>1:1 Soluble Salts, mmho/cm</b>	0.19	ICAP Iron, ppm Fe	222.4
<b>Excess Lime Rating</b>	1		
<b>Organic Matter, %LOI</b>	3.4	<b>Calculations</b>	
		Organic C:Organic N	9.9
		Nitrogen mineralization, ppm N	14.2
<b>Solvita CO2 Burst</b>		Organic Nitrogen Release, ppm N	14.2
CO2-C, ppm C	90.2	Organic Nitrogen Reserve, ppm N	0.0
<b>Water Extract</b>		Phosphorus mineralization, ppm P	5.4
Total Nitrogen, ppm N	17.5	Organic Phosphorus Reserve, ppm P	< 0.1
Organic Nitrogen, ppm N	14.2	Phosphorus Saturation Al/ Fe, %	1.7
Total Organic Carbon, ppm C	140	Phosphorus Saturation Ca, %	5.7
<b>H3A Extract</b>		<b>Soil Health</b>	
Nitrate, ppm NO3-N	1.7	Soil Health Calculation	11.97
Ammonium, ppm NH4-N	2.6	Cover Crop Suggestion	50% Legume 50% Grass
Inorganic Nitrogen, ppm N	4.4		
Inorganic (FIA) Phosphorus, ppm P	4.6		
Total (ICAP) Phosphorus, ppm P	10		
Organic Phosphorus, ppm P	5.4		
ICAP Potassium, ppm K	120		
ICAP Calcium, ppm Ca	176		

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**Haney - Soil Health Analysis Contd.**

Lab No. : 3823

**Nutrient Quantity Available for Next Crop**

Nitrogen, lbs N/A	37.1
Phosphorus, lbs P2O5/A	42.3
Potassium, lbs K2O/A	144.2
Nutrient Value, \$/A	112.36

**Nitrogen Savings by using the Haney Test**

Traditional evaluation, lbs N/A	3.5
Haney Test N evaluation, lbs N/A	37.1
Nitrogen Difference, lbs N/A	33.6
N savings, \$/A	21.53

**Fertilizer Recommendations, lbs/A**

<u>Crop</u>	<u>Yield Goal</u>	<u>Nitrogen N</u>	<u>Phosphorus P2O5</u>	<u>Potassium K2O</u>	<u>Lime, ECC T/A</u>
Alfalfa T/A	1	0	0	0	
Alfalfa T/A	1.50	0	0	0	
Alfalfa T/A	1.75	0	0	0	