

lb/A

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

87022-20

Name Jason Schneider City Ohlman State IL
 Independent Consultant RPM Soils LLC Date 11/28/2023

Sample Location	Schneider Farms	Field 14	Field 14	Field 14	Field 14	Field 14
Sample Identification		1	2	3	4	5
Lab Number		0253-1	0254-1	0256-1	0257-1	0258-1
Total Exchange Capacity (ME/100 g)		20.56	16.28	17.32	19.55	17.83
pH	Buffer (SMP/Sikora)	7.2	7.2	7.2	7.2	7.1
	H ₂ O (1:1)	6.2	5.7	6.1	6.5	5.9
Organic Matter (360°C LOI) %		3.47	3.22	3.49	3.75	3.49
Estimated Nitrogen Release	lb/A	85	82	85	88	85
ANIONS	SOLUBLE SULFUR*	ppm	7	7	7	8
	MEHLICH III	lb/A P as P ₂ O ₅	247	261	243	362
		ppm of P	54	57	53	79
	BRAY II	lb/A P as P ₂ O ₅				
		ppm of P				
EXCHANGEABLE CATIONS	OLSEN	lb/A P as P ₂ O ₅				
		ppm of P				
	CALCIUM*	lb/A	5626	3856	4648	5602
		ppm	2813	1928	2324	2801
	MAGNESIUM*	lb/A	598	324	492	626
BASE SATURATION PERCENT		ppm	299	162	246	313
	POTASSIUM*	lb/A	292	270	258	320
		ppm	146	135	129	160
	SODIUM*	lb/A	44	28	38	46
		ppm	22	14	19	23
BASE SATURATION PERCENT						
Calcium	%	68.41	59.21	67.09	71.64	62.25
Magnesium	%	12.12	8.29	11.84	13.34	12.06
Potassium	%	1.82	2.13	1.91	2.10	1.57
Sodium	%	0.47	0.37	0.48	0.51	0.51
Other Bases	%	5.20	6.00	5.20	4.90	5.60
Hydrogen	%	12.00	24.00	13.50	7.50	18.00
EXTRACTABLE MINORS						
Boron* (ppm)		0.61	0.58	0.70	0.70	0.60
Iron* (ppm)		237	250	231	320	205
Manganese* (ppm)		13	21	24	12	31
Copper* (ppm)		2.56	2.01	2.11	2.75	2.04
Zinc* (ppm)		1.41	1.70	1.49	1.94	1.41
Aluminum* (ppm)		475	436	397	444	431
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					

* Mehlich III Extractable

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Sample Location	Schneider Farms	Field 14				
Sample Identification		6				
Lab Number		0259-1				
Total Exchange Capacity (ME/100 g)		13.07				
pH	Buffer (SMP/Sikora)	7.3				
	H ₂ O (1:1)	6.3				
Organic Matter (360°C LOI) %		2.87				
Estimated Nitrogen Release	lb/A	77				
ANIONS	SOLUBLE SULFUR*	ppm	7			
	MEHLICH III	lb/A P as P ₂ O ₅	137			
		ppm of P	30			
	BRAY II	lb/A P as P ₂ O ₅				
		ppm of P				
EXCHANGEABLE CATIONS	OLSEN	lb/A P as P ₂ O ₅				
		ppm of P				
	CALCIUM*	lb/A	3728			
		ppm	1864			
	MAGNESIUM*	lb/A	324			
		ppm	162			
	POTASSIUM*	lb/A	206			
		ppm	103			
	SODIUM*	lb/A	46			
		ppm	23			

BASE SATURATION PERCENT

Calcium	%	71.31			
Magnesium	%	10.33			
Potassium	%	2.02			
Sodium	%	0.77			
Other Bases	%	5.10			
Hydrogen	%	10.50			

EXTRACTABLE MINORS

Boron* (ppm)	0.62			
Iron* (ppm)	189			
Manganese* (ppm)	44			
Copper* (ppm)	1.63			
Zinc* (ppm)	1.30			
Aluminum* (ppm)	369			

Soluble Salts (mmhos/cm)
 Chlorides (ppm)

OTHER TESTS

* Mehlich III Extractable

lb/A

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SOIL AUDIT AND INVENTORY REPORT

87022-25

Name Jason Schneider City Ohlman State ILIndependent Consultant RPM Soils LLC Date 12/4/2023

Sample Location	Schneider Farms	Field 15	Field 15	Field 15		
Sample Identification		1	2	3		
Lab Number		0018-1	0019-1	0020-1		
Total Exchange Capacity (ME/100 g)		21.86	19.47	16.46		
pH	Buffer (SMP/Sikora)	7.4	7.4	7.5		
	H ₂ O (1:1)	6.0	6.2	6.2		
Organic Matter (360°C LOI) %		3.47	3.76	3.19		
Estimated Nitrogen Release	lb/A	85	88	82		
ANIONS	SOLUBLE SULFUR*	ppm				
			9	13	10	
	MEHLICH III	lb/A P as P ₂ O ₅	243	289	202	
		ppm of P	53	63	44	
	BRAY II	lb/A P as P ₂ O ₅				
EXCHANGEABLE CATIONS		ppm of P				
	OLSEN	lb/A P as P ₂ O ₅				
		ppm of P				
	CALCIUM*	lb/A	5754	5284	4652	
		ppm	2877	2642	2326	
	MAGNESIUM*	lb/A	622	588	386	
		ppm	311	294	193	
	POTASSIUM*	lb/A	232	192	172	
		ppm	116	96	86	
	SODIUM*	lb/A	60	100	80	
		ppm	30	50	40	

BASE SATURATION PERCENT

Calcium	%	65.81	67.85	70.66		
Magnesium	%	11.86	12.58	9.77		
Potassium	%	1.36	1.26	1.34		
Sodium	%	0.60	1.12	1.06		
Other Bases	%	5.40	5.20	5.20		
Hydrogen	%	15.00	12.00	12.00		

EXTRACTABLE MINORS

Boron* (ppm)	1.14	1.22	1.05		
Iron* (ppm)	391	290	278		
Manganese* (ppm)	13	25	24		
Copper* (ppm)	2.75	2.64	2.21		
Zinc* (ppm)	1.35	1.40	1.12		
Aluminum* (ppm)	444	388	409		
OTHER TESTS	Soluble Salts (mmhos/cm)				
	Chlorides (ppm)				

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SOIL AUDIT AND INVENTORY REPORT

87022-21

Name Jason Schneider City Ohlman State IL
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Sample Location	Schneider Farms	Field 16	Field 16	Field 16	Field 16
Sample Identification		1	2	3	4
Lab Number		0262-1	0263-1	0264-1	0265-1
Total Exchange Capacity (ME/100 g)		16.63	14.35	17.49	17.78
pH	Buffer (SMP/Sikora)	7.3	7.5	7.3	7.4
	H ₂ O (1:1)	6.3	6.1	6.5	6.1
Organic Matter (360°C LOI) %		3.12	3.23	3.64	3.23
Estimated Nitrogen Release	lb/A	81	82	86	82
ANIONS	SOLUBLE SULFUR*	ppm			
		8	8	8	9
	MEHLICH III	lb/A P as P ₂ O ₅	243	202	192
		ppm of P	53	44	42
	BRAY II	lb/A P as P ₂ O ₅			
EXCHANGEABLE CATIONS		ppm of P			
	OLSEN	lb/A P as P ₂ O ₅			
		ppm of P			
	CALCIUM*	lb/A	4716	3802	5128
		ppm	2358	1901	2564
	MAGNESIUM*	lb/A	446	418	500
		ppm	223	209	250
	POTASSIUM*	lb/A	212	202	256
		ppm	106	101	128
	SODIUM*	lb/A	54	74	40
		ppm	27	37	20

BASE SATURATION PERCENT

Calcium	%	70.90	66.24	73.30	68.56
Magnesium	%	11.17	12.14	11.91	10.40
Potassium	%	1.63	1.80	1.88	1.64
Sodium	%	0.71	1.12	0.50	0.68
Other Bases	%	5.10	5.20	4.90	5.20
Hydrogen	%	10.50	13.50	7.50	13.50

EXTRACTABLE MINORS

Boron* (ppm)	0.66	0.59	0.80	0.69
Iron* (ppm)	320	268	263	293
Manganese* (ppm)	16	23	18	14
Copper* (ppm)	2.41	1.94	2.55	2.59
Zinc* (ppm)	1.38	1.27	1.68	1.30
Aluminum* (ppm)	410	428	420	436
Soluble Salts (mmhos/cm)				
Chlorides (ppm)				
OTHER TESTS				

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87022-12

SOIL AUDIT AND INVENTORY REPORT

Name Jason Schneider City Ohlman State ILIndependent Consultant RPM Soils LLC Date 11/28/2023

Sample Location			Field 17	1	2	3		
Sample Identification								
Lab Number				0472-1	0473-1	0474-1		
Total Exchange Capacity (ME/100 g)				19.24	18.21	25.60		
pH	Buffer (SMP/Sikora)			7.3	7.3	7.3		
	H ₂ O (1:1)			6.0	6.3	6.3		
Organic Matter (360°C LOI) %				3.54	3.65	4.25		
Estimated Nitrogen Release			lb/A	85	86	92		
ANIONS	SOLUBLE SULFUR*		ppm	6	8	7		
	PHOSPHORUS	MEHLICH III	lb/A P as P ₂ O ₅	165	142	270		
			ppm of P	36	31	59		
		BRAY II	lb/A P as P ₂ O ₅					
		ppm of P						
	OLSEN	lb/A P as P ₂ O ₅						
		ppm of P						
EXCHANGEABLE CATIONS	CALCIUM*		lb/A	5216	5198	7238		
		ppm		2608	2599	3619		
	MAGNESIUM*		lb/A	454	462	716		
		ppm		227	231	358		
	POTASSIUM*		lb/A	250	280	358		
		ppm		125	140	179		
	SODIUM*		lb/A	30	40	30		
		ppm		15	20	15		
BASE SATURATION PERCENT								
Calcium			%	67.78	71.36	70.68		
Magnesium			%	9.83	10.57	11.65		
Potassium			%	1.67	1.97	1.79		
Sodium			%	0.34	0.48	0.25		
Other Bases			%	5.40	5.10	5.10		
Hydrogen			%	15.00	10.50	10.50		
EXTRACTABLE MINORS								
Boron* (ppm)				0.73	0.66	0.68		
Iron* (ppm)				238	183	194		
Manganese* (ppm)				46	54	25		
Copper* (ppm)				2.19	1.97	2.73		
Zinc* (ppm)				1.36	1.13	1.59		
Aluminum* (ppm)				499	582	543		
OTHER TESTS	Soluble Salts (mmhos/cm)							
	Chlorides (ppm)							

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SOIL AUDIT AND INVENTORY REPORT

87022-24

Name Jason Schneider City Ohlman State IL
 Independent Consultant RPM Soils LLC Date 12/4/2023

Sample Location	Schneider Farms	Field 18	Field 18	Field 18	Field 18	Field 18
Sample Identification		1	2	3	4	5
Lab Number		0021-1	0022-1	0023-1	0024-1	0025-1
Total Exchange Capacity (ME/100 g)		22.03	26.47	19.52	17.39	20.35
pH	Buffer (SMP/Sikora)	7.3	7.2	7.3	7.3	7.5
	H ₂ O (1:1)	6.1	5.7	6.0	6.0	6.5
Organic Matter (360°C LOI) %		3.49	4.10	3.64	2.95	3.38
Estimated Nitrogen Release	lb/A	85	91	86	79	84
ANIONS	SOLUBLE SULFUR*	ppm	10	10	7	8
	MEHLICH III	lb/A P as P ₂ O ₅	266	284	137	128
		ppm of P	58	62	30	28
	BRAY II	lb/A P as P ₂ O ₅				
		ppm of P				
EXCHANGEABLE CATIONS	OLSEN	lb/A P as P ₂ O ₅				
		ppm of P				
	CALCIUM*	lb/A	6038	6194	5204	4694
		ppm	3019	3097	2602	2347
	MAGNESIUM*	lb/A	554	586	514	430
		ppm	277	293	257	215
	POTASSIUM*	lb/A	276	390	202	164
		ppm	138	195	101	82
	SODIUM*	lb/A	70	48	58	50
		ppm	35	24	29	25
BASE SATURATION PERCENT						
Calcium	%	68.52	58.50	66.65	67.48	75.97
Magnesium	%	10.48	9.22	10.97	10.30	9.71
Potassium	%	1.61	1.89	1.33	1.21	1.37
Sodium	%	0.69	0.39	0.65	0.63	0.53
Other Bases	%	5.20	6.00	5.40	5.40	4.90
Hydrogen	%	13.50	24.00	15.00	15.00	7.50
EXTRACTABLE MINORS						
Boron* (ppm)		1.12	1.16	0.92	0.80	0.83
Iron* (ppm)		244	281	245	227	170
Manganese* (ppm)		37	29	49	44	41
Copper* (ppm)		2.43	2.78	2.18	2.16	2.61
Zinc* (ppm)		1.35	1.43	1.27	1.24	1.60
Aluminum* (ppm)		482	535	472	439	413
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					

* Mehlich III Extractable



Analytical Services By:
Brookside Laboratories, Inc.
New Bremen, OH 45869

Field 12: 40 Acres
 Field 13: 35 Acres
 Field 14: 58 Acres
 Field 15: 36 Acres
 Field 16: 36 Acres



Analytical Services By:
 Brookside Laboratories, Inc.
 New Bremen, OH 45869