


01/29/2023	516	GREENHOUSE#1	KNOX	2000 sq. ft.
PRINT DATE	LAB NO.	SAMPLE IDENTIFICATION	COUNTY	ACRES OR SQ. FT.

•SOIL TEST REPORT FOR:
KATE RITZ
 144 ROBERTS CEMETERY ROAD
 VINALHAVEN ME 04863

MAINE SOIL TESTING SERVICE
 UNIVERSITY OF MAINE 
 5722 DEERING HALL.
 ORONO, MAINE 04469-5722

•SOIL TEST SUMMARY & INTERPRETATION
(see Numerical Results section for more information)

	Level Found	LOW	MEDIUM	OPTIMUM	ABOVE OPTIMUM
Soil pH	6.8				
Organic Matter (%)	21.4				
<small>Major nutrients</small> Nitrate-N (ppm)	220				
Phosphorus (lb/A)	345				
Potassium (lb/A)	3079				
Calcium (% Sat)	68.2				
Magnesium (% Sat)	15.2				
<small>Microelements</small> Sulfur (ppm)	159				
Boron (ppm)	3.4				
Copper (ppm)	0.34				
Iron (ppm)	6.4				
Manganese (ppm)	27				
Zinc (ppm)	7.4				

•RECOMMENDED ADDITIONS FOR ORGANIC GROWING - Crop Code # 392 (HIGH TUNNEL)

No lime recommended. Soil pH is at or above the optimum level for this crop.

Magnesium level is sufficient to meet crop requirement.

To meet major nutrient requirements, Apply on every 1000 sq. ft.:

No fertilizer necessary. Current nutrient levels are sufficient.

N-P-K recommendations are for heavier feeding crops, such as Tomatoes, Peppers, & Vines.
 1/2 the recommended rates should be sufficient for Greens, Cut Flowers, and Fruit crops.
 Tomatoes: Recommendations are based on 60-80 ton/A (3-4 lb/sq ft) yield goal.

For information on micronutrient management and recommendations, see enclosed form.

•NUMERICAL RESULTS

Test methodology: pH in water and Mehlich buffer, available nutrients by modified Morgan extract; Organic matter measured by LOI; P determined colorimetrically, all others measured by ICP-OES

CNC and nutrient balance calculations are based on present pH of 6.8

Level Found	6.8	6.51	345	3079	1595	11780	23.7(A)	16.6	15.2	68.2	0.0
	Soil pH	Lime Index 2	Phosphorus (lb/A)	Potassium (lb/A)	Magnesium (lb/A)	Calcium (lb/A)	CNC (me/100 g)	K	Mg (4 saturation)	Ca	Acidity
Optimum Range	6.0-7.0	N/A	40-80	600-800			> 5		10-20	60-80	< 10
Level Found	21.4	159	0.34	6.4	26.9	7.4					
	Organic Matter (%)	Sulfur (ppm)	Copper (ppm)	Iron (ppm)	Manganese (ppm)	Zinc (ppm)					
Normal Range	8-12	> 25	.25-.60	6 - 10	4 - 8	1 - 2					
Level Found	3.4	(Hi) 700	2.48	(OK) 220		15					
(Extras)	Boron (ppm)	Sodium (ppm)	Soluble Salts (mbow/cal)	Nitrate-N (ppm)	Ammonium-N (ppm)						
Normal Range	0.5-1.2	< 200	< 4.0	100-200	< 10						

Additional Results or Comments:

Metals scan: NORMAL BACKGROUND LEVEL -
 no health risk.

Flush soil fairly by watering to natural rainfall for several weeks.

Full payment received for this sample. Thank you

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•SOIL TEST REPORT FOR:
KATE RITZ
P.O. 668
VINALHAVEN ME 04863

MAINE SOIL TESTING SERVICE
UNIVERSITY OF MAINE 
5722 DEERING HALL
ORONO, MAINE 04469-5722

• **SOIL TEST SUMMARY & INTERPRETATION**
(see Numerical Results section for more information)

	Level Found	LOW	MEDIUM	OPTIMUM	ABOVE OPTIMUM
Soil pH	7.0	XX	XX	XX	XX
Organic Matter (%)	26.3	XX	XX	XX	XX
<i>Major nutrients</i>					
Nitrate-N (ppm)	529	XX	XX	XX	XX
Phosphorus (lb/A)	1128	XX	XX	XX	XX
Potassium (lb/A)	5843	XX	XX	XX	XX
Calcium (% Sat)	57.8	XX	XX	XX	XX
Magnesium (% Sat)	16.1	XX	XX	XX	XX
Sulfur (ppm)	271	XX	XX	XX	XX
<i>Micronutrients</i>					
Boron (ppm)	3.9	XX	XX	XX	XX
Copper (ppm)	0.75	XX	XX	XX	XX
Iron (ppm)	6.8	XX	XX	XX	XX
Manganese (ppm)	41	XX	XX	XX	XX
Zinc (ppm)	8.2	XX	XX	XX	XX

• **RECOMMENDED ADDITIONS FOR ORGANIC GROWING - Crop Code # 392 (HIGH TUNNEL)**

No lime recommended. Soil pH is at or above the optimum level for this crop.

Magnesium level is sufficient to meet crop requirement.
 To meet major nutrient requirements, Apply on every 1000 sq. ft.:

No fertilizer necessary, Current nutrient levels are sufficient.

N-P-K recommendations are for heavier feeding crops, such as Tomatoes, Peppers, & Vines. 1/2 the recommended rates should be sufficient for Greens, Cut Flowers, and Fruit crops. Tomatoes: Recommendations are based on 60-80 ton/A (3-4 lb/sq ft) yield goal. Flush excess salts by uncovering to natural rainfall for several weeks or by slow overhead irrigation with 6+ inches of water. Salts may also be diluted by mixing in ~~soil~~ field soil at 1/4 by volume.

For information on micronutrient management and recommendations, see enclosed form.

• **NUMERICAL RESULTS** (Plant methodology, pH in water and Mehlich buffer, available nutrients by modified Morgan extract) (Organic matter measured by LOI, P determined colorimetrically, all others measured by ICP OHR)

CEC and nutrient balance calculations are based on present pH of 7.0

Level Found	7.0	0.00	1128	5843	2247	13273	28.6(A)	26.0	16.1	57.8	0.0
	Soil pH	Lime Index 2	Phosphorus (lb/A)	Potassium (lb/A)	Magnesium (lb/A)	Calcium (lb/A)	CEC (me/100 g)	K	Mg (% Saturation)	Ca	Acidity
Optimum Range	6.0-7.0	N/A	40-80	600-800			> 5		10-20	60-80	< 10
Level Found	26.3	271	0.75	6.8	41.0	8.2					
	Organic Matter (%)	Sulfur (ppm)	Copper (ppm)	Iron (ppm)	Manganese (ppm)	Zinc (ppm)					
Normal Range	8-12	> 25	0.8-1.2	6 - 10	4 - 8	1 - 2					
Level Found	3.9	1142	4.11 (Hi)	529	28						
(Extras)	Boron (ppm)	Sodium (ppm)	Soluble Salts (mmhos/cm)	Nitrate-N (ppm)	Ammonium-N (ppm)						
Normal Range	0.5-1.2	< 200	< 4.0	100-200	< 10						

Additional Results or Comments:
 Metals scan: NORMAL BACKGROUND LEVEL - no health risk.

Full payment received for this sample. Thank you

09/03/2021	7655	GREENHOUSE #1	KNOX	2016 sq. ft
PRINT DATE	LAB NO.	SAMPLE IDENTIFICATION	COUNTY	ACRES OR SQ. FT.

•SOIL TEST REPORT FOR:

KATE RITZ
P.O. BOX 668
VINALHAVEN ME 04863

MAINE SOIL TESTING SERVICE
UNIVERSITY OF MAINE 1865
5722 DEERING HALL
ORONO, MAINE 04469-5722



•SOIL TEST SUMMARY & INTERPRETATION
(see Numerical Results section for more information)

	Level Found	LOW	MEDIUM	OPTIMUM	ABOVE OPTIMUM
Soil pH	7.1	XX	XX	XX	XX
Organic Matter (%)	24.9	XX	XX	XX	XX
<i>Major nutrients</i> Nitrate-N (ppm)	95	XX	XX	XX	
Phosphorus (lb/A)	992	XX	XX	XX	XX
Potassium (lb/A)	4187	XX	XX	XX	XX
Calcium (% Sat)	64.1	XX	XX	XX	XX
Magnesium (% Sat)	16.8	XX	XX	XX	XX
Sulfur (ppm)	106	XX	XX	XX	XX
<i>Micronutrients</i> Boron (ppm)	3.0	XX	XX	XX	XX
Copper (ppm)	0.85	XX	XX	XX	
Iron (ppm)	8.3	XX	XX	XX	XX
Manganese (ppm)	22	XX	XX	XX	XX
Zinc (ppm)	7.3	XX	XX	XX	XX

•RECOMMENDED ADDITIONS FOR ORGANIC GROWING - Crop Code # 392 (HIGH TUNNEL)

No lime recommended. Soil pH is at or above the optimum level for this crop.

Magnesium level is sufficient to meet crop requirement.

To meet major nutrient requirements, Apply on every 1000 sq. ft.:
Nitrogen(2.8 lb) - from 23 lb bloodmeal or 40 lb soybean meal

Avoid excess foliar growth. Apply 1/2 nitrogen at planting, 1/2 at mid-season.
N-P-K recommendations are for heavier feeding crops, such as Tomatoes, Peppers, & Vines.
1/2 the recommended rates should be sufficient for Greens, Cut Flowers, and Fruit crops.
Tomatoes: Recommendations are based on 60-80 ton/A (3-4 lb/sq ft) yield goal.
Flush excess salts by uncovering to natural rainfall for several weeks
or by slow overhead irrigation with 6+ inches of water.
Salts may also be diluted by mixing in peat or field soil at 1/4 by volume.
Apply 15 lb elemental sulfur/1000 sq. ft. to lower pH to 6.5. Till in well.

For information on micronutrient management and recommendations, see enclosed form.

•NUMERICAL RESULTS

(Test methodology: pH in water and Mehlich buffer, available nutrients by modified Morgan extract)
(Organic matter measured by LOI, P determined colorimetrically, all others measured by ICP-OES)

CBC and nutrient balance calculations are based on present pH of 7.1


Level Found	7.1	0.00	992	4187	2043	12834	28.1(A)	19.0	16.8	64.1	0.0
	Soil pH	Lime Index	Phosphorus (lb/A)	Potassium (lb/A)	Magnesium (lb/A)	Calcium (lb/A)	CBC (me/100 g)	K	Mg (% Saturation)	Ca	Acidity
Optimum Range	6.0-7.0	N/A	40-80	600-800			> 5		10-20	60-80	< 10
Level Found	24.9	106	0.85	8.3	22.3	7.3					
	Organic Matter (%)	Sulfur (ppm)	Copper (ppm)	Iron (ppm)	Manganese (ppm)	Zinc (ppm)	Additional Results or Comments:				
Normal Range	8-12	> 25	0.8-1.2	6 - 10	4 - 8	1 - 2	Metals scan: NORMAL BACKGROUND LEVEL - no health risk.				
Level Found	3.0	958	3.44	95	7						
	Boron (ppm)	Sodium (ppm)	Soluble Salts (umho/cm)	Nitrate-N (ppm)	Ammonium-N (ppm)	Full payment received for this sample. Thank you					
Normal Range	0.5-1.2	< 200	< 4.0	100-200	< 10						

11/19/2021	10198	GREENHOUSE 1	KNOX	2016 sq. ft.
PRINT DATE	LAB NO.	SAMPLE IDENTIFICATION	COUNTY	ACRES OR SQ. FT.

•SOIL TEST REPORT FOR:

KATE RITZ
P.O. BOX 668
VINALHAVEN ME 04863

MAINE SOIL TESTING SERVICE
UNIVERSITY OF MAINE **1863**
5722 DEERING HALL
ORONO, MAINE 04469-5722



•SOIL TEST SUMMARY & INTERPRETATION
(see Numerical Results section for more information)

	Level Found	LOW	MEDIUM	OPTIMUM	ABOVE OPTIMUM
Soil pH	6.9				
Organic Matter(%)	36.9				
Major nutrients					
Nitrate-N (ppm)	319				
Phosphorus (lb/A)	1744				
Potassium (lb/A)	3720				
Calcium (% Sat)	67.5				
Magnesium (% Sat)	19.1				
Sulfur (ppm)	755				
Micronutrients					
Boron (ppm)	4.3				
Copper (ppm)	0.97				
Iron (ppm)	8.5				
Manganese (ppm)	33				
Zinc (ppm)	11				

•RECOMMENDED ADDITIONS FOR ORGANIC GROWING - Crop Code # 392 (HIGH TUNNEL)

No lime recommended. Soil pH is at or above the optimum level for this crop.

Magnesium level is sufficient to meet crop requirement.

To meet major nutrient requirements, Apply on every 1000 sq. ft.:

No fertilizer necessary. Current nutrient levels are sufficient.

Tomatoes: Recommendations are based on 60-80 ton/A (3-4 lb/sq ft) yield goal.
Flush excess salts by uncovering to natural rainfall for several weeks
or by slow overhead irrigation with 6+ inches of water.
Salts may also be diluted by mixing in peat or field soil at 1/4 by volume.

For information on micronutrient management and recommendations, see enclosed form.

•NUMERICAL RESULTS

(Test methodology: pH in water and Mehlich buffer, available nutrients by modified Mollen extract)
(Organic matter measured by LOI, P determined colorimetrically, all others measured by ICP-OES)

CEC and nutrient balance calculations are based on present pH of 6.9

Level Found	6.9	6.56	1744	3720	3290	19140	35.6(A)	13.4	19.1	67.5	0.0
	Soil pH	Lime Index 2	Phosphorus (lb/A)	Potassium (lb/A)	Magnesium (lb/A)	Calcium (lb/A)	CEC (me/100 g)	K	Mg (% Saturation)	Ca	Acidity
Optimum Range	6.0-7.0	N/A	40-80	600-800			> 5		10-20	60-80	< 10
Level Found	36.9	755	0.97	8.5	33.4	10.8					
	Organic Matter(%)	Sulfur (ppm)	Copper (ppm)	Iron (ppm)	Manganese (ppm)	Zinc (ppm)					
Normal Range	8-12	> 25	0.8-1.2	6-10	4-8	1-2					
Level Found	4.3	1329	2.86 (H)	319	9						
(Extras)	Boron (ppm)	Sodium (ppm)	Soluble Salts (mmhos/cm)	Nitrate-N (ppm)	Ammonium-N (ppm)						
Normal Range	0.5-1.2	< 200	< 4.0	100-200	< 10						

Additional Results or Comments:
Metals scan: NORMAL BACKGROUND LEVEL -
no health risk.


Full payment received for this sample. Thank you.

12/27/2021	11074	GREENHOUSE 1	KNOX	2016 sq. f
PRINT DATE	LAB NO.	SAMPLE IDENTIFICATION	COUNTY	ACRES OR SQ. FT.

•SOIL TEST REPORT FOR:

KATE RITZ
P.O. 668
VINALHAVEN ME 04863

MAINE SOIL TESTING SERVICE
UNIVERSITY OF MAINE 1863
5722 DEERING HALL
ORONO, MAINE 04469-5722



•SOIL TEST SUMMARY & INTERPRETATION
(see Numerical Results section for more information)

	Level Found	LOW	MEDIUM	OPTIMUM	ABOVE OPTIMUM
Soil pH	6.9				
Organic Matter(%)	39.4				
<small>Major nutrients</small>					
Nitrate-N (ppm)	143				
Phosphorus (lb/A)	2033				
Potassium (lb/A)	7897				
Calcium (% Sat)	52.6				
Magnesium (% Sat)	20.2				
Sulfur (ppm)	567				
<small>Micronutrients</small>					
Boron (ppm)	3.1				
Copper (ppm)	0.90				
Iron (ppm)	10				
Manganese (ppm)	68				
Zinc (ppm)	9.0				

•RECOMMENDED ADDITIONS FOR ORGANIC GROWING - Crop Code # 392 (HIGH TUNNEL)

No lime recommended. Soil pH is at or above the optimum level for this crop.

Magnesium level is sufficient to meet crop requirement.
To meet major nutrient requirements, Apply on every 1000 sq. ft.:
Nitrogen(0.4 lb) - from 3 lb bloodmeal or 6 lb soybean meal

N-P-K recommendations are for heavier feeding crops, such as Tomatoes, Peppers, & Vines.
1/2 the recommended rates should be sufficient for Greens, Cut Flowers, and Fruit crops.
Tomatoes: Recommendations are based on 60-80 ton/A (3-4 lb/sq ft) yield goal.
Flush excess salts by uncovering to natural rainfall for several weeks or by slow overhead irrigation with 6+ inches of water.
Salts may also be diluted by mixing in peat or field soil at 1/4 by volume.

For information on micronutrient management and recommendations, see enclosed form.

•NUMERICAL RESULTS

(Test methodology: pH in water and Munsich buffer, available nutrients by modified Morgan extract; Organic matter measured by LOI, P determined colorimetrically, all others measured by ICP-OES)

CEC and nutrient balance calculations are based on present pH of 6.9

Level Found	6.9	6.55	2033	7897	3154	13538	37.2(A)	27.1	20.2	52.6	0.0
	Soil pH	Lime Index 2	Phosphorus (lb/A)	Potassium (lb/A)	Magnesium (lb/A)	Calcium (lb/A)	CEC (me/100 g)	K	Mg (% Saturation)	Ca	Acidity
Optimum Range	6.0-7.0	N/A	40-80	600-800			> 5		10-20	60-80	< 10

Level Found	39.4	567	0.90	10.0	67.6	9.0
	Organic Matter (%)	Sulfur (ppm)	Copper (ppm)	Iron (ppm)	Manganese (ppm)	Zinc (ppm)
Normal Range	8-12	> 25	0.8-1.2	6 - 10	4 - 8	1 - 2

Additional Results or Comments:
Metals scan: NORMAL BACKGROUND LEVEL - no health risk.

Level Found	3.1	1819	4.96	143	7
(Extras)	Boron (ppm)	Sodium (ppm)	Soluble Salts (mmhos/cm)	Nitrate-N (ppm)	Ammonium-N (ppm)
Normal Range	0.5-1.2	< 200	< 4.0	100-200	< 10

Full payment received for this sample. Thank you.

SOIL TEST REPORT FOR:
KATE RITZ
P.O. 668
VINALHAVEN ME 04863

MAINE SOIL TESTING SERVICE
UNIVERSITY OF MAINE
 5722 DEERING HALL
 ORONO, MAINE 04469-5722



SOIL TEST SUMMARY & INTERPRETATION
 (see Numerical Results section for more information)

	Level Found	LOW	MEDIUM	OPTIMUM	ABOVE OPTIMUM
Soil pH	7.2				
Organic Matter (%)	34.6				
Major nutrients					
Nitrate-N (ppm)	52				
Phosphorus (lb/A)	1938				
Potassium (lb/A)	6451				
Calcium (% Sat)	52.9				
Magnesium (% Sat)	24.3				
Sulfur (ppm)	162				
Micronutrients					
Boron (ppm)	2.2				
Copper (ppm)	2.20				
Iron (ppm)	11				
Manganese (ppm)	34				
Zinc (ppm)	8.3				

RECOMMENDED ADDITIONS FOR ORGANIC GROWING - Crop Code # 392 (HIGH TUNNEL)

No lime recommended. Soil pH is at or above the optimum level for this crop.

Magnesium level is sufficient to meet crop requirement.
 To meet major nutrient requirements, Apply on every 1000 sq. ft.:
 Nitrogen (5.0 lb) - from 42 lb bloodmeal or 71 lb soybean meal

Avoid excess foliar growth. Apply 1/2 nitrogen at planting, 1/2 at mid-season.
 N-P-K recommendations are for heavier feeding crops, such as Tomatoes, Peppers, & Vines.
 1/2 the recommended rates should be sufficient for Greens, Cut Flowers, and Fruit crops.
 Tomatoes: Recommendations are based on 60-80 ton/A (3-4 lb/sq ft) yield goal.
 Flush excess salts by uncovering to natural rainfall for several weeks
 or by slow overhead irrigation with 6+ inches of water.
 Salts may also be diluted by mixing in peat or field soil at 1/4 by volume.
 Apply 15 lb elemental sulfur/1000 sq. ft. to lower pH to 6.5. Till in well.

For information on micronutrient management and recommendations, see enclosed form.

NUMERICAL RESULTS

(Test methodology: pH in water and Mehlich buffer, available nutrients by modified Mogen extract)
 (Organic matter measured by LOI, P determined colorimetrically, all others measured by ICP-OES)

CEC and nutrient balance calculations are based on present pH of 7.2

Level Found	7.2	0.00	1938	6451	3884	13919	36.2(A)	22.8	24.3	52.9	0.0
	Soil pH	Lime Index	Phosphorus (lb/A)	Potassium (lb/A)	Magnesium (lb/A)	Calcium (lb/A)	CEC (me/100 g)	K	Mg (% Saturation)	Ca	Acidity
Optimum Range	6.0-7.0	N/A	40-80	500-800			> 5	10-20	60-80	< 10	
Level Found	34.6	162	2.20	11.4	33.6	8.3					
	Organic Matter (%)	Sulfur (ppm)	Copper (ppm)	Iron (ppm)	Manganese (ppm)	Zinc (ppm)					
Normal Range	8-12	> 25	0.8-1.2	6 - 10	4 - 8	1 - 2					
Level Found	2.2	1406	2.63		52	17					
(Extras)	Boron (ppm)	Sodium (ppm)	Soluble Salts (mmhos/cm)	Nitrate-N (ppm)	Ammonium-N (ppm)						
Normal Range	0.5-1.2	< 200	< 4.0	100-200	< 10						

Additional Results or Comments:
 Metals scan: NORMAL BACKGROUND LEVEL -
 no health risk.

Full payment received for this sample. Thank you

In 2018, Extension personnel from the Universities of Massachusetts, Vermont, New Hampshire and Rhode Island documented production practices and took soil and leaf samples from 20 tomato high tunnels in those 4 states, with support from the New England Vegetable and Berry Grower's Association. Soil and tissue samples were analyzed at the University of Maine and Massachusetts labs. Here are some guidelines for optimizing tomato production based on the data collected. NOTE - this project surveyed current practices and conditions in a variety of tunnels; additional research is needed to quantify the impact of different management and fertilization practices.

Practices that may increase yield:

- **Transplant earlier, at higher density:** April 1st – May 1st with 3-5ft² per leader.
- **Graft plants for stronger roots,** especially if soil conditions are not optimal.
- **Avoid compaction.** Sample 10 locations to 15 cm depth. If over 300 psi found, subsoil or make raised beds.
- **Provide adequate soil moisture.** Install at least 2 drip lines per plant, up to 4 if sandy soil. Mulches may help keep moisture even across the soil surface.
- **Keep up with pruning.** Prune side shoots when small, remove foliage to 1st cluster.
- **Track performance.** Measure harvests, even if simply counting boxes. This is key to assessing management changes.
- **Set yield goal.** Based on length of season, variety, etc. Reasonable goals = 3-5 lbs/ft² Make fertilizer applications based on goal (see tables on the reverse page)
- **Phosphorus*** don't over-apply, crops do not remove a lot, tunnel soils are warm.
- **Potassium*** is removed in large quantities by tomatoes. Make sure adequate K is available, especially as fruits form.
- **Nitrogen*** is also removed in large quantities, provide sufficient available N for biomass production through the entire growing season. Front-load slow-release amendments and/or apply soluble fertilizer during the season.
- **Monitor available AND reserve soil nutrients** (Table 1). Take leaf samples monthly for additional guidance.
- **Fertilizer application should be based on soil test results,** otherwise you are guessing!
- **Scout and Manage Pests.** Do not let challenging insects (like aphids) or diseases (like powdery mildew) get ahead of you. Set up a regular scouting schedule and send samples to lab for ID as needed. Find scouting guidelines here: ag.umass.edu/vegetable/outreach-project/new-england-pest-scouting-network

Table 1. Recommended Ranges for Tissue and Soil High Tunnel Testing

Analysis	Greenhouse leaf tissue at first full bloom [†]	Standard soil test for High Tunnels [*] (reserve nutrients)	SME test for High Tunnels [*] (available nutrients)
pH	-	6.2-6.8	6.2-6.8
Organic Matter	-	8-12%	8-12%
Soluble Salts	-	n/a	2-4 mmhos/cm
Nitrate - N	2.5-4%	100-200 ppm	100-200 ppm
Ammonium - N	-	<10 ppm	<10 ppm
Phosphorous	0.2-1%	20-40 ppm	1-5 ppm
Potassium	2.5-10%	300-400 ppm	150-275 ppm
Calcium	1-3%	-	>250 ppm
Magnesium	0.3-1%	-	>60 ppm
Sulfur	0.3-0.8%	>25 ppm	>25ppm
Boron	20-40 ppm	0.5-1.2 ppm	0.05 -0.5 ppm
Copper	5-15 ppm	0.8-1.2 ppm	0.01 -0.5 ppm
Iron	40-100ppm	6-10 ppm	0.3 -5.0 ppm
Manganese	30-100ppm	4-8 ppm	0.1 - 3.0 ppm
Sodium	-	<200 ppm	<100 ppm
Zinc	25-40ppm	1-2 ppm	0.3 - 3.0 ppm

[†] Adequate ranges from University of Florida Electronic Data information Source: <https://edis.ifas.ufl.edu/cp081> ^{*} Optimum and normal ranges based on the UMaine Soil Lab for the long term high tunnel test (standard soil test uses the Modified Morgan extract solution, and the SME test uses a water extract solution): http://anlab.umesci.maine.edu/soillab_files/prices/soiltest12.pdf
Note: The University of Maine reports test results in lbs/A. To convert from ppm to lbs/A multiply by 2. For example, 100ppm = 200lbs/A

BONUS! Fertilizer recommendations on the back →