

## Report To

SPECTRUM ANALYTIC INC  
1087 JAMISON RD NW  
WASHINGTON CH, OH 43160-8748

## Prepared For

RICH EARTH INSTITUE  
355 OLD FERRY RD  
BRATTLEBORO, VT 05301

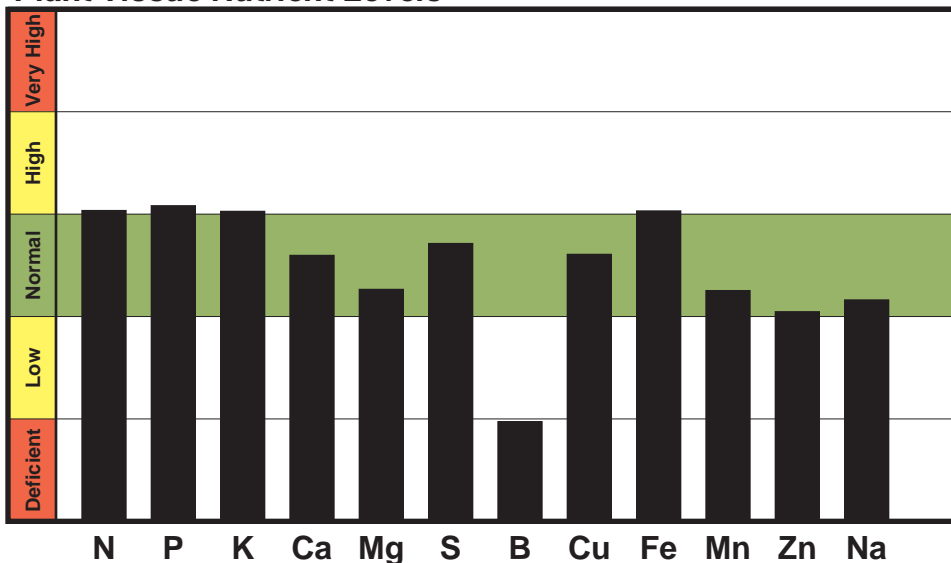
## Sample Information

Sample ID 210906 URINE1-4  
Lab Number PL80929  
Sampled 09-07-2021  
Tested 09-13-2021

### Plant Tissue Analysis Report Type: Sweet Corn (*Zea mays*) Part: Ear Leaf Stage: Fruiting

Plant Test	Result	Normal Range
Nitrogen	3.88 %	2.80 - 3.50
Phosphorus	0.52 %	0.25 - 0.40
Potassium	2.69 %	1.80 - 2.50
Calcium	0.79 %	0.20 - 1.20
Magnesium	0.34 %	0.18 - 0.80
Sulfur	0.3 %	0.18 - 0.35
Boron	5.8 ppm	8 - 25
Copper	14 ppm	5 - 20
Iron	274 ppm	30 - 250
Manganese	52 ppm	20 - 150
Zinc	22 ppm	20 - 70
Sodium	31 ppm	0 - 200

### Plant Tissue Nutrient Levels



### Comments

(The following comments apply to lab numbers 80929, 80930, 80931, 80932 and 80933)

I put all of these samples together as it appears to be a comparison for nitrogen time of application and materials. At this time all of the N is reporting high in the plant with the exception of the control. The pasturized urea product all raised the N content in the leaves to the high range and increasing the rate of material increased the N content in the leaves with the exception of 80931 which had the mid rate applied and contains the low N level in the leaf at this time. The conventional program 80933 has a bordering normal/high level of N in the plant, but I do not know how much N may have been in the pasturized urea product to comment on that. All of the P levels are in the plants at this time, but there is some variation on the K levels in the plants. Some of this difference may be due to K levels in the soil or may also be due to wet soil conditions. The Ca, Mg, S, Cu, Fe and Zn levels are reporting similar in all the plants with some small variations. The B is reporting low/deficient in all the plants, there are some soils that do not have the ability to whole a high amount of B in the soil, but also B is an anion that can leach deeper in the soil profile and the roots may not pick it up. The Mn is reporting low/normal in 80932 and 80933, this may be due to Mn that may be in the pasturized urea as that is the only product I see applied in the other fields. The Zn is

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**Sample Information**

Sample ID	210906 URINE1-4
Lab Number	PL80929
Sampled	09-07-2021
Tested	09-13-2021

**Comments (continued)**

reporting borderline normal/low in all samples except 80930 and I am not sure why that is occurring. High P levels in the soil can interfere with Zn uptake but the P is high in all the plants.

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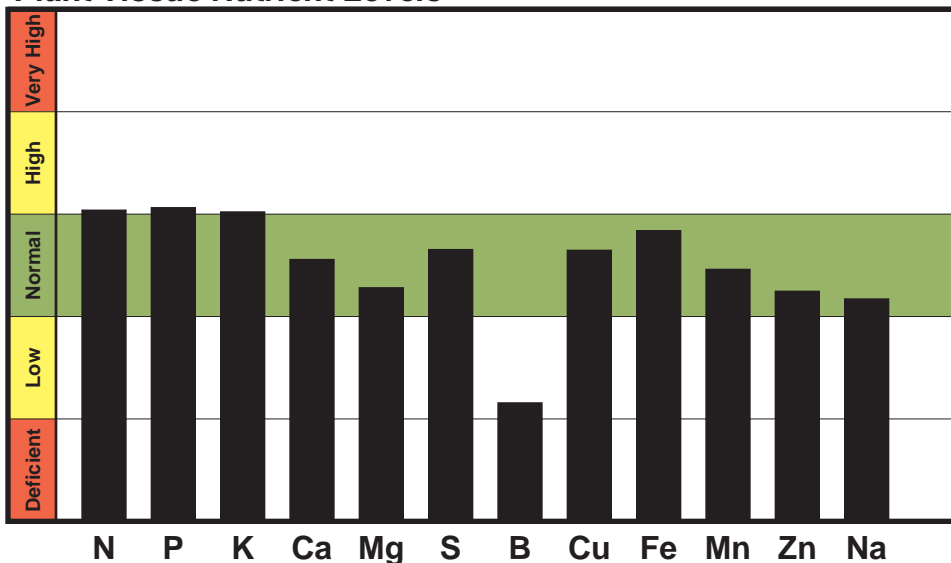
## Sample Information

Sample ID 210906 URINE5-8  
Lab Number PL80930  
Sampled 09-07-2021  
Tested 09-13-2021

### Plant Tissue Analysis Report Type: Sweet Corn (*Zea mays*) Part: Ear Leaf Stage: Fruiting

Plant Test	Result	Normal Range
Nitrogen	3.93 %	2.80 - 3.50
Phosphorus	0.49 %	0.25 - 0.40
Potassium	2.64 %	1.80 - 2.50
Calcium	0.75 %	0.20 - 1.20
Magnesium	0.35 %	0.18 - 0.80
Sulfur	0.29 %	0.18 - 0.35
Boron	6.3 ppm	8 - 25
Copper	14.6 ppm	5 - 20
Iron	213 ppm	30 - 250
Manganese	79 ppm	20 - 150
Zinc	32 ppm	20 - 70
Sodium	33 ppm	0 - 200

### Plant Tissue Nutrient Levels



### Comments

(The following comments apply to lab numbers 80929, 80930, 80931, 80932 and 80933)

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**Sample Information**

Sample ID 210906 URINE5-8

Lab Number PL80930

Sampled 09-07-2021

Tested 09-13-2021

**Comments (continued)**

reporting borderline normal/low in all samples except 80930 and I am not sure why that is occurring. High P levels in the soil can interfere with Zn uptake but the P is high in all the plants.

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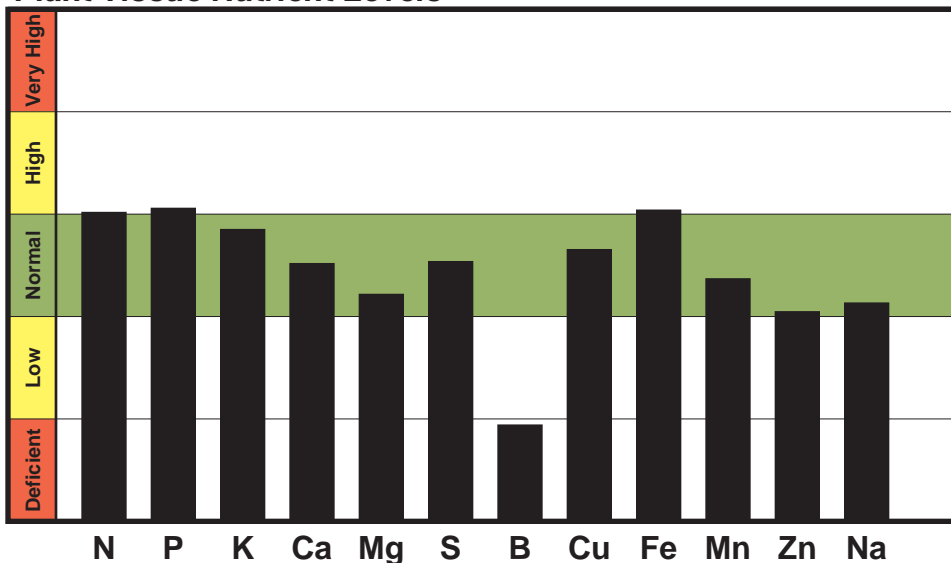
## Sample Information

Sample ID 210906 URINE6-7  
Lab Number PL80931  
Sampled 09-07-2021  
Tested 09-13-2021

### Plant Tissue Analysis Report Type: Sweet Corn (*Zea mays*) Part: Ear Leaf Stage: Fruiting

Plant Test	Result	Normal Range
Nitrogen	3.63 %	2.80 - 3.50
Phosphorus	0.48 %	0.25 - 0.40
Potassium	2.39 %	1.80 - 2.50
Calcium	0.71 %	0.20 - 1.20
Magnesium	0.31 %	0.18 - 0.80
Sulfur	0.27 %	0.18 - 0.35
Boron	5.6 ppm	8 - 25
Copper	14.7 ppm	5 - 20
Iron	282 ppm	30 - 250
Manganese	67 ppm	20 - 150
Zinc	22 ppm	20 - 70
Sodium	25 ppm	0 - 200

### Plant Tissue Nutrient Levels



### Comments

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Lab Number	PL80931
Sampled	09-07-2021
Tested	09-13-2021

**Comments (continued)**

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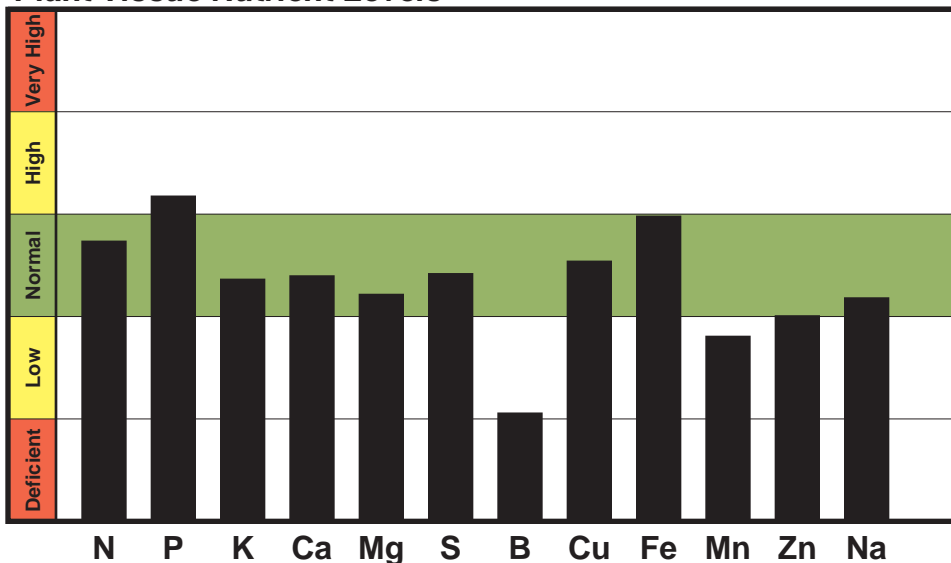
## Sample Information

Sample ID 210906 CONTROL  
Lab Number PL80932  
Sampled 09-07-2021  
Tested 09-13-2021

### Plant Tissue Analysis Report Type: Sweet Corn (*Zea mays*) Part: Ear Leaf Stage: Fruiting

Plant Test	Result	Normal Range
Nitrogen	3.31 %	2.80 - 3.50
Phosphorus	0.67 %	0.25 - 0.40
Potassium	2.05 %	1.80 - 2.50
Calcium	0.59 %	0.20 - 1.20
Magnesium	0.31 %	0.18 - 0.80
Sulfur	0.25 %	0.18 - 0.35
Boron	6.1 ppm	8 - 25
Copper	13 ppm	5 - 20
Iron	244 ppm	30 - 250
Manganese	19 ppm	20 - 150
Zinc	20 ppm	20 - 70
Sodium	35 ppm	0 - 200

### Plant Tissue Nutrient Levels

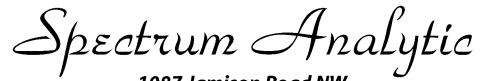


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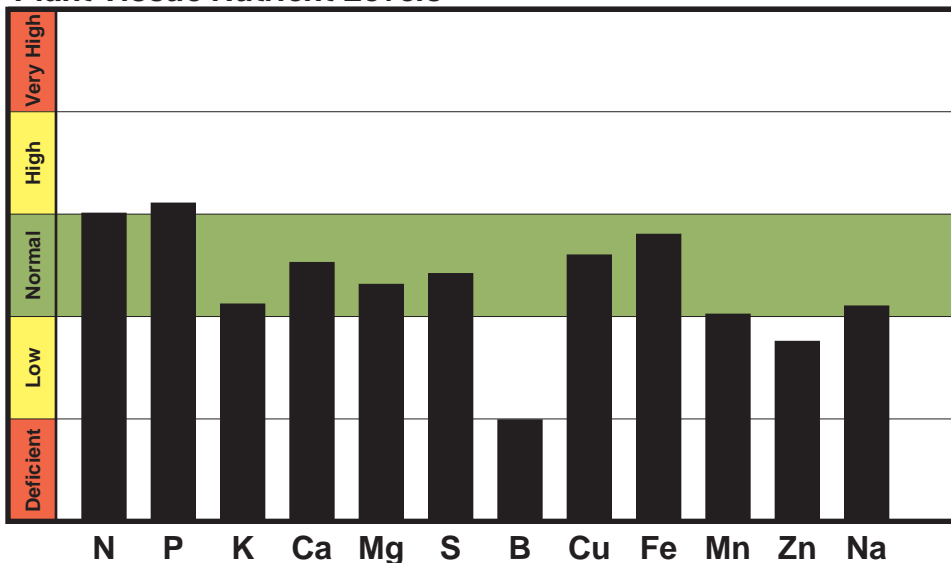
## Sample Information

Sample ID 210906 CONVENTN  
Lab Number PL80933  
Sampled 09-07-2021  
Tested 09-13-2021

### Plant Tissue Analysis Report Type: Sweet Corn (*Zea mays*) Part: Ear Leaf Stage: Fruiting

Plant Test	Result	Normal Range
Nitrogen	3.52 %	2.80 - 3.50
Phosphorus	0.56 %	0.25 - 0.40
Potassium	1.88 %	1.80 - 2.50
Calcium	0.72 %	0.20 - 1.20
Magnesium	0.37 %	0.18 - 0.80
Sulfur	0.25 %	0.18 - 0.35
Boron	5.9 ppm	8 - 25
Copper	13.9 ppm	5 - 20
Iron	205 ppm	30 - 250
Manganese	22 ppm	20 - 150
Zinc	18 ppm	20 - 70
Sodium	19 ppm	0 - 200

### Plant Tissue Nutrient Levels

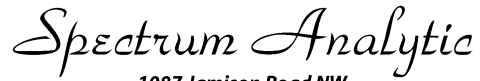


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