

## CUSTOMER INFORMATION

<b>Name:</b>	TNT Farming Solutions	<b>Bill To:</b>	TNT Farming Solutions
<b>Email:</b>	info@tntfarmingsolutions.com	<b>Phone:</b>	(574) 532-6201

### Roots to Shoots Summary Report- TNT HEF 2-3-0 & Super Salmon+ V2 Corn

Sample Type	Untreated			TNT HEF 2-3-0 & Super Salmon+			% Change		
	Haney	Rhize	Tissue	Haney	Rhize	Tissue	Haney	Rhize	Tissue
<b>Health Overview</b>	12.6	49%	-114	12.8	58%	-71	1%	18%	43.65
<b>Community Structure</b>	12.6	63%		12.8	65%		1.3%	2.8%	
<b>Respiration</b>	94.2	77%		91.9	59%		-2.4%	-18.1%	
<b>Environmental Stressors</b>		29%			32%			2.6%	
<b>Carbon</b>	140.8	44%		152.5	62%		8.3%	18.4%	
<b>Nitrogen</b>	161.5	48%	4.64	118.8	48%	4.52	-26.5%	-0.2%	-2.6%
<b>Phosphorus</b>	28.1	64%	0.39	24.6	56%	0.35	-12.6%	-8.1%	-10.3%
<b>Potassium</b>	69.8	36%	3.54	73.8	47%	3.86	5.7%	10.7%	9.0%
<b>Sulfur</b>	6.9	48%	0.23	6.2	53%	0.24	-10.5%	5.4%	4.3%
<b>Calcium</b>	722.3	29%	0.68	661.6	45%	0.76	-8.4%	16.5%	11.8%
<b>Iron</b>	82.6	79%	4864.31	89.4	73%	3480.01	8.2%	-5.9%	-28.5%
<b>Zinc</b>	0.7		43.83	0.7		46.75	-10.5%		6.7%
<b>Manganese</b>	2.1		117.44	2.2		91.91	7.7%		-21.7%
<b>Magnesium</b>	141.8		0.27	119.3		0.25	-15.8%		-7.4%
<b>Sodium</b>	9.8		0.01	7.1		0.01	-27.3%		0.0%
<b>Copper</b>	0.5		16.18	0.5		16.92	-10.1%		4.6%
<b>Aluminum</b>	138.5		1864.12	158.7		1558.48	14.6%		-16.4%
<b>Molybdenum</b>			1.82			1.94			6.6%
<b>Boron</b>			11.58			12.51			8.0%

Contact RhizeBio:

Phone: 919-351-2038

Email: support@rhizebio.com

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**Roots to Shoots Summary Report-TNT HEF 2-3-0 & Super Salmon+ V2 Corn**

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	Haney	Rhize	Tissue	Haney	Rhize	Tissue	Haney	Rhize	Tissue
<b>Health Overview</b>	12.6	49%	-114	12.8	58%	-71	1%	18%	43.65
<b>Community Structure</b>	12.6	63%		12.8	65%		1.3%	2.8%	
Number of Genera		2760.3			2913.3			5.5%	
Diversity		24.0%			99.7%			315.3%	
Evenness		10.7%			57.0%			434.4%	
Mycorrhizae Abundance		38%			25%			-12.3%	
Plant Stress Adaptation		76%			79%			3.1%	
Fungal to Bacterial Ratio									
Ectomycorrhizal to Arbuscular Ratio									
1:1 Soil pH	6.1			6.0			-1.1%		
Soil Health Calculation	12.6			12.8			1.3%		
Organic Matter	3.4			3.3			-1.0%		
1:1 Soluble Salt	0.6			0.4			-35.1%		
Organic C:N	11.3			10.4			-7.5%		
<b>Respiration</b>	94.2	77%		91.9	59%		-2.4%	-18.1%	
High Oxygen Environment		77%			59%			-18.1%	
CO2-C	94.2			91.9			-2.4%		
<b>Environmental Stressors</b>		29%			32%			2.6%	
Anoxic Environment		29%			32%			2.6%	
<b>Carbon</b>	140.8	44%		152.5	62%		8.3%	18.4%	
CO2-C	94.2			91.9			-2.4%		
Organic Matter	3.4			3.3			-1.0%		
Carbon Fixation		18%			51%			32.8%	
Organic Carbon Breakdown		49%			67%			18.1%	
Methanogenesis		35%			31%			-4.4%	
H2O Total Organic C	140.8			152.5			8.3%		
% MAC	64.5			57.4			-10.9%		

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Sample Type	Untreated			TNT HEF 2-3-0 & Super Salmon+			% Change		
	Haney	Rhize	Tissue	Haney	Rhize	Tissue	Haney	Rhize	Tissue
<b>Health Overview</b>	12.6	49%	-114	12.8	58%	-71	1%	18%	43.65
<b>Nitrogen</b>	161.5	48%	4.64	118.8	48%	4.52	-26.5%	-0.2%	-2.6%
Nitrogen Fixation		39%			46%			7.7%	
Nodulating Bacteria		47%			47%			-0.6%	
Organic Nitrogen Breakdown		73%			73%			0.5%	
H3A Ammonium	1.8			1.2			-32.4%		
Nitrification		33%			26%			-6.7%	
H3A Nitrate	53.1			33.7			-36.4%		
Denitrification		52%			54%			2.3%	
H2O Total N	67.4			50.0			-25.8%		
H2O Organic N	12.5			14.6			16.7%		
H3A Inorganic Nitrogen	54.8			34.9			-36.3%		
Organic N Release	12.5			14.6			16.7%		
Organic N Reserve	0.0			0.0					
Available N	161.5			118.8			-26.5%		
Total Nitrogen, % N			4.6			4.5			-2.6%
<b>Phosphorus</b>	28.1	64%	0.39	24.6	56%	0.35	-12.6%	-8.1%	-10.3%
Phosphorus Solubilization		64%			56%			-8.1%	
H3A Total Phosphorus	12.2			10.7			-12.5%		
H3A Inorganic Phosphorus	10.4			7.8			-25.1%		
H3A Organic Phosphorus	1.8			2.9			59.5%		
Organic P Release	1.8			2.9			59.5%		
Organic P Reserve	0.0			0.0					
Available P	28.1			24.6			-12.6%		
Phosphorus, % P			0.39			0.35			-10.3%

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Sample Type	Untreated			TNT HEF 2-3-0 & Super Salmon+			% Change		
	Haney	Rhize	Tissue	Haney	Rhize	Tissue	Haney	Rhize	Tissue
<b>Health Overview</b>	12.6	49%	-114	12.8	58%	-71	1%	18%	43.65
<b>Potassium</b>	69.8	36%	3.54	73.8	47%	3.86	5.7%	10.7%	9.0%
Potassium Solubilization		36%			47%			10.7%	
H3A ICAP Potassium	58.2			61.5			5.7%		
Available K	69.8			73.8			5.7%		
Potassium, % K			3.54			3.86			9.0%
<b>Sulfur</b>	6.9	48%	0.23	6.2	53%	0.24	-10.5%	5.4%	4.3%
Sulfur Oxidation		26%			35%			9.6%	
Sulfur Reduction		31%			30%			-1.2%	
H3A ICAP Sulfur	6.9			6.2			-10.5%		
Sulfur, % S			0.23			0.24			4.3%
<b>Calcium</b>	722.3	29%	0.68	661.6	45%	0.76	-8.4%	16.5%	11.8%
Calcium Transport		29%			45%			16.5%	
H3A ICAP Calcium	722.3			661.6			-8.4%		
Calcium, % Ca			0.68			0.76			11.8%
<b>Iron</b>	82.6	79%	4864.31	89.4	73%	3480.01	8.2%	-5.9%	-28.5%
Iron Acquisition		79%			73%			-5.9%	
H3A ICAP Iron	82.6			89.4			8.2%		
Iron, ppm Fe			4864.31			3480.01			-28.5%
<b>Zinc</b>	0.7		43.83	0.7		46.75	-10.5%		6.7%
H3A ICAP Zinc	0.7			0.7			-10.5%		
Zinc, ppm Zn			43.83			46.75			6.7%
<b>Manganese</b>	2.1		117.44	2.2		91.91	7.7%		-21.7%
H3A ICAP Manganese	2.1			2.2			7.7%		
Manganese, ppm Mn			117.44			91.91			-21.7%

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Sample Type	Untreated			TNT HEF 2-3-0 & Super Salmon+			% Change		
	Haney	Rhize	Tissue	Haney	Rhize	Tissue	Haney	Rhize	Tissue
<b>Health Overview</b>	12.6	49%	-114	12.8	58%	-71	1%	18%	43.65
<b>Magnesium</b>	141.8		0.27	119.3		0.25	-15.8%		-7.4%
H3A ICAP Magnesium	141.8			119.3			-15.8%		
Magnesium, % Mg			0.27			0.25			-7.4%
<b>Sodium</b>	9.8		0.01	7.1		0.01	-27.3%		0.0%
H3A ICAP Sodium	9.8			7.1			-27.3%		
Sodium, % Na			0.01			0.01			0.0%
<b>Copper</b>	0.5		16.18	0.5		16.92	-10.1%		4.6%
H3A ICAP Copper	0.5			0.5			-10.1%		
Copper, ppm Cu			16.18			16.92			4.6%
<b>Aluminum</b>	138.5		1864.12	158.7		1558.48	14.6%		-16.4%
H3A ICAP Aluminum	138.5			158.7			14.6%		
Aluminum, ppm Al			1864.12			1558.48			-16.4%
<b>Molybdenum</b>			1.82			1.94			6.6%
Molybdenum, ppm Mo			1.82			1.94			6.6%
<b>Boron</b>			11.58			12.51			8.0%
Boron, ppm B			11.58			12.51			8.0%

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Name:	TNT Farming SOLUTIONS	Grower Name:	TNT Farming Solutions
Address:	6928 S Benham Rd Versailles, IN 47042	Field ID:	TNT HEF 2-3-0 & Super Salmon+
Phone:	(574) 532-6201	Crop Type:	Corn
Bill To:	TNT Farming Solutions	Crop Variety:	Corn

### Top 20 Bacterial Genera

AE = Aerobic AN = Anaerobic OA = Obligate Aerobic ON = Obligate Anaerobic F = Facultative MA = Microaerophilic ECM = Ecyomycorrhizal Fungi AMF = Arbuscular Mycorrhizal Fungi

Untreated			TNT HEF 2-3-0 & Super Salmon+			Response to TNT HEF 2-3-0 & Super Salmon+		
Genera	Abundance	Metabolism	Genera	Abundance	Metabolism	Genera	Change in Abundance	Metabolism
Pseudomonas	37.52%	aerobic	Pseudomonas	15.54%	aerobic	Pseudomonas	▼ -58.57%	aerobic
Arthrobacter	9.66%	obligate aerobic	Arthrobacter	7.88%	obligate aerobic	Arthrobacter	▼ -18.46%	obligate aerobic
Nocardioiodes	3.83%	obligate aerobic	Streptomyces	6.04%	aerobic	Nocardioiodes	▲ 56.59%	obligate aerobic
Streptomyces	3.51%	aerobic	Nocardioiodes	6.00%	obligate aerobic	Streptomyces	▲ 71.83%	aerobic
Bradyrhizobium	2.62%	aerobic	Bradyrhizobium	3.20%	aerobic	Bradyrhizobium	▲ 22.27%	aerobic
Paenarthrobacter	2.09%	aerobic	Priestia	2.66%		Paenarthrobacter	▼ -28.24%	aerobic
Rhodococcus	1.98%	aerobic	Microbacterium	1.86%	aerobic	Rhodococcus	▼ -13.27%	aerobic
Microbacterium	1.86%	aerobic	Variovorax	1.78%	aerobic	Microbacterium	▼ -0.18%	aerobic
Pseudarthrobacter	1.78%	aerobic	Pseudarthrobacter	1.76%	aerobic	Pseudarthrobacter	▼ -1.01%	aerobic
Rhizobium	1.40%	aerobic	Mesorhizobium	1.73%	obligate aerobic	Rhizobium	▲ 2.24%	aerobic
Variovorax	1.26%	aerobic	Rhodococcus	1.72%	aerobic	Variovorax	▲ 42.17%	aerobic
Mesorhizobium	1.24%	obligate aerobic	Paenarthrobacter	1.50%	aerobic	Mesorhizobium	▲ 38.79%	obligate aerobic
Priestia	1.11%		Rhizobium	1.43%	aerobic	Priestia	▲ 140.19%	
Phycococcus	0.78%	obligate aerobic	Burkholderia	0.93%	N/A	Phycococcus	NA	obligate aerobic
Mycobacterium	0.78%	aerobic	Mycobacterium	0.89%	aerobic	Mycobacterium	▲ 14.19%	aerobic
Glutamicibacter	0.78%	aerobic	Mycolicibacterium	0.83%	aerobic	Glutamicibacter	▼ -62.71%	aerobic
Enterobacter	0.77%	aerobic	Kribbella	0.77%	obligate aerobic	Enterobacter	▼ -32.84%	aerobic
Terrabacter	0.74%	obligate aerobic	Terrabacter	0.57%	obligate aerobic	Terrabacter	▼ -23.65%	obligate aerobic
Sphingomonas	0.69%	aerobic	Stenotrophomonas	0.56%	aerobic	Sphingomonas	▼ -56.41%	aerobic
Stenotrophomonas	0.67%	aerobic	Enterobacter	0.51%	aerobic	Stenotrophomonas	▼ -16.17%	aerobic

### Top 20 Fungal Genera

AE = Aerobic AN = Anaerobic OA = Obligate Aerobic ON = Obligate Anaerobic F = Facultative MA = Microaerophilic ECM = Ecyomycorrhizal Fungi AMF = Arbuscular Mycorrhizal Fungi

Untreated			TNT HEF 2-3-0 & Super Salmon+			Response to TNT HEF 2-3-0 & Super Salmon+		
Genera	Abundance	Metabolism	Genera	Abundance	Metabolism	Genera	Change in Abundance	Metabolism
Fusarium	0.18%	facultative	Mortierella	0.99%	aerobic	Fusarium	▲ 297.82%	facultative
Alternaria	0.09%		Fusarium	0.73%	facultative	Alternaria	▲ 89.25%	
Linnemannia	0.08%		Mycena	0.35%	aerobic	Linnemannia	NA	
Mucor	0.06%		Diaporthe	0.22%	aerobic	Mucor	▲ 70.29%	
Gigaspora	0.05%	AMF	Microdochium	0.21%		Gigaspora	▲ 83.02%	AMF
Microdochium	0.05%		Alternaria	0.18%		Microdochium	▲ 356.52%	
Spathaspora	0.04%		Mucor	0.10%		Spathaspora	▲ 56.25%	
Mortierella	0.03%	aerobic	Gigaspora	0.10%	AMF	Mortierella	▲ 3478.31%	aerobic
Penicillium	0.03%		Rhodotorula	0.10%		Penicillium	▲ 62.96%	
Plectosphaerella	0.02%	NA	Colletotrichum	0.07%	NA	Plectosphaerella	▼ -66.67%	NA
Colletotrichum	0.02%	ECM	Spathaspora	0.06%		Colletotrichum	▲ 194.12%	ECM
Rhizopus	0.02%	NA	Aspergillus	0.05%	aerobic	Rhizopus	▲ 48.48%	NA
Aspergillus	0.02%		Acremonium	0.05%	NA	Aspergillus	▲ 118.46%	
Furcasterigmium	0.02%	aerobic	Cladosporium	0.05%	NA	Furcasterigmium	▼ -53.33%	aerobic
Mycena	0.02%		Penicillium	0.04%		Mycena	▲ 1925.00%	
Cantharellus	0.02%	aerobic	Rhizophagus	0.04%		Cantharellus	▲ 100.00%	aerobic
Diaporthe	0.02%	aerobic	Cantharellus	0.03%	aerobic	Diaporthe	▲ 1242.86%	aerobic
Rhodotorula	0.02%	aerobic	Rhizopus	0.03%	NA	Rhodotorula	▲ 523.91%	aerobic
Clonostachys	0.02%		Talaromyces	0.03%	NA	Clonostachys	▼ -19.57%	
Mrakia	0.01%		Chaetomium	0.02%	facultative	Mrakia	NA	





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#### Roots to Shoots Summary Report- TNT HEF 2-3-0 & Super Salmon+ V5 Corn

Sample Type	Untreated			TNT HEF 2-3-0 & Super Salmon+			% Change		
	Haney	Rhize	Tissue	Haney	Rhize	Tissue	Haney	Rhize	Tissue
<b>Health Overview</b>	6.1	55%	36	5.8	57%	41	-4%	4%	5.16
<b>Community Structure</b>	6.1	54%		5.8	56%		-4.1%	3.6%	
<b>Respiration</b>	34.2	34%		34.1	33%		-0.2%	-0.6%	
<b>Environmental Stressors</b>		38%			42%			4.5%	
<b>Carbon</b>	89.5	49%		81.7	50%		-8.8%	0.5%	
<b>Nitrogen</b>	81.2	54%	4.00	40.4	55%	3.64	-50.3%	1.3%	-9.0%
<b>Phosphorus</b>	46.1	57%	0.35	27.3	59%	0.33	-40.8%	1.2%	-5.9%
<b>Potassium</b>	68.2	52%	2.48	87.7	52%	3.22	28.6%	0.3%	30.0%
<b>Sulfur</b>	4.2	37%	0.25	3.0	39%	0.24	-27.6%	2.3%	-2.7%
<b>Calcium</b>	655.3	68%	0.82	654.9	64%	0.74	-0.1%	-4.2%	-9.8%
<b>Iron</b>	80.8	67%	232.02	79.7	68%	248.20	-1.4%	0.9%	7.0%
<b>Zinc</b>	1.0		45.32	0.8		41.67	-18.3%		-8.1%
<b>Manganese</b>	2.4		29.04	1.4		26.88	-44.0%		-7.4%
<b>Magnesium</b>	120.9		0.47	116.3		0.34	-3.8%		-27.5%
<b>Sodium</b>	6.6		0.02	7.1		0.02	7.8%		0.0%
<b>Copper</b>	0.5		20.63	0.4		18.21	-1.5%		-11.7%
<b>Aluminum</b>	144.9		81.18	149.3		84.83	3.1%		4.5%
<b>Molybdenum</b>			3.28			3.05			-6.8%
<b>Boron</b>			17.16			14.94			-13.0%

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**Roots to Shoots Summary Report- TNT HEF 2-3-0 & Super Salmon+ V5 Corn**

Sample Type	Untreated			TNT HEF 2-3-0 & Super Salmon+			% Change		
	Haney	Rhize	Tissue	Haney	Rhize	Tissue	Haney	Rhize	Tissue
<b>Health Overview</b>	6.1	55%	36	5.8	57%	41	-4%	4%	5.16
<b>Community Structure</b>	6.1	54%		5.8	56%		-4.1%	3.6%	
Number of Genera		3076.7			3132.3			1.8%	
Diversity		40.0%			91.3%			128.3%	
Evenness		36.7%			33.7%			-8.2%	
Mycorrhizae Abundance		56%			40%			-16.0%	
Plant Stress Adaptation		65%			68%			3.3%	
Fungal to Bacterial Ratio									
Ectomycorrhizal to Arbuscular Ratio									
1:1 Soil pH	6.5			6.6			2.1%		
Soil Health Calculation	6.1			5.8			-4.1%		
Organic Matter	4.4			4.3			-0.8%		
1:1 Soluble Salt	0.3			0.2			-49.5%		
Organic C:N	10.3			10.5			1.6%		
<b>Respiration</b>	34.2	34%		34.1	33%		-0.2%	-0.6%	
High Oxygen Environment		34%			33%			-0.6%	
CO2-C	34.2			34.1			-0.2%		
<b>Environmental Stressors</b>		38%			42%			4.5%	
Anoxic Environment		38%			42%			4.5%	
<b>Carbon</b>	89.5	49%		81.7	50%		-8.8%	0.5%	
CO2-C	34.2			34.1			-0.2%		
Organic Matter	4.4			4.3			-0.8%		
Carbon Fixation		34%			32%			-2.3%	
Organic Carbon Breakdown		59%			58%			-0.8%	
Methanogenesis		45%			41%			-4.6%	
H2O Total Organic C	89.5			81.7			-8.8%		
% MAC	38.4			43.6			13.7%		

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**Roots to Shoots Summary Report- TNT HEF 2-3-0 & Super Salmon+ V5 Corn**

Sample Type	Untreated			TNT HEF 2-3-0 & Super Salmon+			% Change		
	Haney	Rhize	Tissue	Haney	Rhize	Tissue	Haney	Rhize	Tissue
<b>Health Overview</b>	6.1	55%	36	5.8	57%	41	-4%	4%	5.16
<b>Nitrogen</b>	81.2	54%	4.00	40.4	55%	3.64	-50.3%	1.3%	-9.0%
Nitrogen Fixation		41%			56%			14.6%	
Nodulating Bacteria		38%			39%			0.5%	
Organic Nitrogen Breakdown		58%			61%			3.9%	
H3A Ammonium	1.6			1.2			-27.2%		
Nitrification		54%			46%			-7.4%	
H3A Nitrate	23.5			8.2			-65.0%		
Denitrification		38%			43%			5.7%	
H2O Total N	33.6			17.8			-47.0%		
H2O Organic N	8.7			7.9			-9.4%		
H3A Inorganic Nitrogen	25.1			9.4			-62.5%		
Organic N Release	8.7			7.4			-14.9%		
Organic N Reserve	0.0			0.5					
Available N	81.2			40.4			-50.3%		
Total Nitrogen, % N			4.0			3.6			-9.0%
<b>Phosphorus</b>	46.1	57%	0.35	27.3	59%	0.33	-40.8%	1.2%	-5.9%
Phosphorus Solubilization		57%			59%			1.2%	
H3A Total Phosphorus	20.1			12.2			-39.4%		
H3A Inorganic Phosphorus	15.7			8.9			-43.0%		
H3A Organic Phosphorus	4.4			3.2			-26.4%		
Organic P Release	4.4			2.9			-32.5%		
Organic P Reserve	0.0			0.3					
Available P	46.1			27.3			-40.8%		
Phosphorus, % P			0.35			0.33			-5.9%

Contact RhizeBio:

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**CUSTOMER INFORMATION**

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**Roots to Shoots Summary Report- TNT HEF 2-3-0 & Super Salmon+ V5 Corn**

Sample Type	Untreated			TNT HEF 2-3-0 & Super Salmon+			% Change		
	Haney	Rhize	Tissue	Haney	Rhize	Tissue	Haney	Rhize	Tissue
<b>Health Overview</b>	6.1	55%	36	5.8	57%	41	-4%	4%	5.16
<b>Potassium</b>	68.2	52%	2.48	87.7	52%	3.22	28.6%	0.3%	30.0%
Potassium Solubilization		52%			52%			0.3%	
H3A ICAP Potassium	56.8			73.0			28.6%		
Available K	68.2			87.7			28.6%		
Potassium, % K			2.48			3.22			30.0%
<b>Sulfur</b>	4.2	37%	0.25	3.0	39%	0.24	-27.6%	2.3%	-2.7%
Sulfur Oxidation		37%			44%			6.3%	
Sulfur Reduction		64%			65%			1.8%	
H3A ICAP Sulfur	4.2			3.0			-27.6%		
Sulfur, % S			0.25			0.24			-2.7%
<b>Calcium</b>	655.3	68%	0.82	654.9	64%	0.74	-0.1%	-4.2%	-9.8%
Calcium Transport		68%			64%			-4.2%	
H3A ICAP Calcium	655.3			654.9			-0.1%		
Calcium, % Ca			0.82			0.74			-9.8%
<b>Iron</b>	80.8	67%	232.02	79.7	68%	248.20	-1.4%	0.9%	7.0%
Iron Acquisition		67%			68%			0.9%	
H3A ICAP Iron	80.8			79.7			-1.4%		
Iron, ppm Fe			232.02			248.20			7.0%
<b>Zinc</b>	1.0		45.32	0.8		41.67	-18.3%		-8.1%
H3A ICAP Zinc	1.0			0.8			-18.3%		
Zinc, ppm Zn			45.32			41.67			-8.1%
<b>Manganese</b>	2.4		29.04	1.4		26.88	-44.0%		-7.4%
H3A ICAP Manganese	2.4			1.4			-44.0%		
Manganese, ppm Mn			29.04			26.88			-7.4%

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<b>Email:</b>	info@tntfarmingsolutions.com	<b>Phone:</b>	(574) 532-6201

**Roots to Shoots Summary Report- TNT HEF 2-3-0 & Super Salmon+ V5 Corn**

Sample Type	Untreated			TNT HEF 2-3-0 & Super Salmon+			% Change		
	Haney	Rhize	Tissue	Haney	Rhize	Tissue	Haney	Rhize	Tissue
<b>Health Overview</b>	6.1	55%	36	5.8	57%	41	-4%	4%	5.16
<b>Magnesium</b>	120.9		0.47	116.3		0.34	-3.8%		-27.5%
H3A ICAP Magnesium	120.9			116.3			-3.8%		
Magnesium, % Mg			0.47			0.34			-27.5%
<b>Sodium</b>	6.6		0.02	7.1		0.02	7.8%		0.0%
H3A ICAP Sodium	6.6			7.1			7.8%		
Sodium, % Na			0.02			0.02			0.0%
<b>Copper</b>	0.5		20.63	0.4		18.21	-1.5%		-11.7%
H3A ICAP Copper	0.5			0.4			-1.5%		
Copper, ppm Cu			20.63			18.21			-11.7%
<b>Aluminum</b>	144.9		81.18	149.3		84.83	3.1%		4.5%
H3A ICAP Aluminum	144.9			149.3			3.1%		
Aluminum, ppm Al			81.18			84.83			4.5%
<b>Molybdenum</b>			3.28			3.05			-6.8%
Molybdenum, ppm Mo			3.28			3.05			-6.8%
<b>Boron</b>			17.16			14.94			-13.0%
Boron, ppm B			17.16			14.94			-13.0%

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CUSTOMER INFORMATION		CUSTOMER INFORMATION	
Name:	TNT Farming Solutions	Grower Name:	TNT Farming Solutions
Address:	6928 S Benham Rd Versailles, IN 47042	Field ID:	Ck 10
Phone:	(574) 532-6201	Crop Type:	Corn
Bill To:	TNT Farming Solutions	Crop Variety:	Corn

### Top 20 Bacterial Genera

AE = Aerobic AN = Anaerobic OA = Obligate Aerobic ON = Obligate Anaerobic F = Facultative MA = Microaerophilic ECM = Ecyomycorrhizal Fungi AMF = Arbuscular Mycorrhizal Fungi

Untreated			TNT HEF 2-3-0 & Super Salmon+			Response to TNT HEF 2-3-0 & Super Salmon+		
Genera	Abundance	Metabolism	Genera	Abundance	Metabolism	Genera	Change in Abundance	Metabolism
Streptomyces	18.65%	aerobic	Streptomyces	15.93%	aerobic	Streptomyces	▼ -14.59%	aerobic
Priestia	12.92%	obligate aerobic	Bradyrhizobium	4.85%	aerobic	Priestia	▼ -64.20%	obligate aerobic
Bradyrhizobium	4.91%	aerobic	Priestia	4.63%	obligate aerobic	Bradyrhizobium	▼ -1.27%	aerobic
Nocardiodides	3.67%	obligate aerobic	Burkholderia	3.87%		Nocardiodides	▼ -16.86%	obligate aerobic
Kribbella	2.25%	obligate aerobic	Nocardiodides	3.05%	obligate aerobic	Kribbella	▼ -17.93%	obligate aerobic
Burkholderia	1.82%		Enterobacter	2.68%	aerobic	Burkholderia	▲ 112.39%	
Arthrobacter	1.64%	obligate aerobic	Kribbella	1.85%	obligate aerobic	Arthrobacter	▼ -8.40%	obligate aerobic
Mycobacterium	1.55%	aerobic	Mycobacterium	1.81%	aerobic	Mycobacterium	▲ 16.67%	aerobic
Mesorhizobium	1.37%	obligate aerobic	Arthrobacter	1.50%	obligate aerobic	Mesorhizobium	▼ -37.95%	obligate aerobic
Pseudomonas	1.25%	aerobic	Rhizobium	1.40%	aerobic	Pseudomonas	▼ -4.20%	aerobic
Microbacterium	1.17%	aerobic	Solirubrobacter	1.26%	aerobic	Microbacterium	▼ -38.51%	aerobic
Rhizobium	1.14%	aerobic	Pseudomonas	1.20%	obligate aerobic	Rhizobium	▲ 22.06%	aerobic
Amycolatopsis	1.13%	obligate aerobic	Mycolicibacterium	1.05%		Amycolatopsis	▼ -18.49%	obligate aerobic
Glycomyces	1.13%	aerobic	Amycolatopsis	0.92%	obligate aerobic	Glycomyces	▼ -77.20%	aerobic
Bacillus	1.08%	aerobic	Sphingomonas	0.92%	aerobic	Bacillus	NA	aerobic
Mycolicibacterium	0.98%		Micromonospora	0.89%	obligate aerobic	Mycolicibacterium	▲ 6.43%	
Micromonospora	0.86%	obligate aerobic	Mesorhizobium	0.85%	aerobic	Micromonospora	▲ 3.25%	obligate aerobic
Enterobacter	0.83%	aerobic	Nonomurea	0.78%	aerobic	Enterobacter	▲ 224.33%	aerobic
Sphingomonas	0.81%	aerobic	Microbacterium	0.72%	aerobic	Sphingomonas	▲ 13.90%	aerobic
Solirubrobacter	0.68%	aerobic	Lentzea	0.49%	aerobic	Solirubrobacter	▲ 83.88%	aerobic

### Top 20 Fungal Genera

AE = Aerobic AN = Anaerobic OA = Obligate Aerobic ON = Obligate Anaerobic F = Facultative MA = Microaerophilic ECM = Ecyomycorrhizal Fungi AMF = Arbuscular Mycorrhizal Fungi

Untreated			TNT HEF 2-3-0 & Super Salmon+			Response to TNT HEF 2-3-0 & Super Salmon+		
Genera	Abundance	Metabolism	Genera	Abundance	Metabolism	Genera	Change in Abundance	Metabolism
Penicillium	0.61%	aerobic	Aspergillus	0.49%	aerobic	Penicillium	▼ -67.12%	aerobic
Fusarium	0.54%	facultative	Fusarium	0.33%	facultative	Fusarium	▼ -39.21%	facultative
Talaromyces	0.52%	aerobic	Trichoderma	0.25%	aerobic	Talaromyces	▼ -89.17%	aerobic
Gigaspora	0.35%	AMF	Penicillium	0.20%	aerobic	Gigaspora	▼ -71.15%	AMF
Alternaria	0.13%		Gigaspora	0.10%	AMF	Alternaria	▼ -32.47%	
Trichoderma	0.11%	aerobic	Macrophomina	0.09%	NA	Trichoderma	▲ 131.48%	aerobic
Staphylotrichum	0.07%		Alternaria	0.09%		Staphylotrichum	NA	
Aspergillus	0.07%	aerobic	Mycena	0.07%		Aspergillus	▲ 601.92%	aerobic
Furcaterigmium	0.05%	AMF	Rhizopus	0.07%		Furcaterigmium	NA	AMF
Diaporthe	0.04%	aerobic	Talaromyces	0.06%	aerobic	Diaporthe	▲ 8.53%	aerobic
Colletotrichum	0.04%	AMF	Diaporthe	0.05%	aerobic	Colletotrichum	▼ -14.06%	AMF
Mycena	0.03%		Mucor	0.04%		Mycena	▲ 112.12%	
Pochonia	0.03%		Pochonia	0.04%		Pochonia	▲ 32.65%	
Rhodotorula	0.03%		Waitea	0.04%		Rhodotorula	NA	
Mucor	0.03%		Racocetra	0.04%		Mucor	▲ 36.84%	
Chaetomium	0.03%	AMF	Colletotrichum	0.04%		Chaetomium	▲ 1.12%	AMF
Waitea	0.03%		Plectosphaerella	0.04%		Waitea	▲ 66.67%	
Plectosphaerella	0.03%		Chaetomium	0.03%		Plectosphaerella	▲ 41.03%	
Microdochium	0.02%		Clonostachys	0.03%	NA	Microdochium	NA	
Cutaneotrichosporon	0.02%		Cutaneotrichosporon	0.01%		Cutaneotrichosporon	▼ -25.93%	



**Roots to Shoots Summary Report- TNT HEF 2-3-0 & Super Salmon+ V5 Corn Pathogen Screening**

<u>Untreated</u>		<u>TNT HEF 2-3-0 &amp; Super Salmon+</u>	
Average Number of Abundant Pathogens Identified: 18.3		Average Number of Abundant Pathogens Identified: 8.7	
Pathogen Species	Disease Common Name	Pathogen Species	Disease Common Name
Exserohilum turcicum	Northern Corn Leaf Blight	Pratylenchus spp.	Root Lesion Nematode
Phoma spp.	Phoma Leaf Spot	Meloidogyne arenaria	Root Knot Nematode
Sclerospora graminicola	Graminicola Downy Mildew	Diabrotica virgifera	Western Corn Rootworm
Aspergillus candidus	Storage Molds		
Cladosporium cladosporioides	Cladosporium Rot		
Trichoderma spp.	Seed Rots and Seedling Blights or Damping Off		
Trichoderma viride	Trichoderma Ear Rot		
Phyllachora maydis	Tar Spot		
Hoplolaimus columbus	Lance Nematode		
Globisporangium paroecandrum	Pythium Root Rot Complex		
Cercospora spp.	Gray Leaf Spot		
Phytophthium helicoides	Pythium Root Rot		
Puccinia polysora	Southern Rust		
Peronosclerospora sorghi	Sorghum Downy Mildew		
Pratylenchus scribneri	Root Lesion Nematode		
Sarocladium strictum	Black Bundle Disease		
Waitea circinata	Rhizoctonia Ear Rot		
Diabrotica virgifera	Western Corn Rootworm		
Fusarium solani	Fusarium Root And Crown Rot Complex		

Replicate 3

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**Roots to Shoots Summary Report- TNT HEF 2-3-0 & Super Salmon+ V8 Corn**

Sample Type	Untreated			TNT HEF 2-3-0 & Super Salmon+			% Change		
	Haney	Rhize	Tissue	Haney	Rhize	Tissue	Haney	Rhize	Tissue
<b>Health Overview</b>	11.8	54%	60	9.9	55%	46	-17%	2%	-13.58
<b>Community Structure</b>	11.8	68%		9.9	60%		-16.6%	-10.8%	
<b>Respiration</b>	78.0	67%		63.2	50%		-19.0%	-16.9%	
<b>Environmental Stressors</b>		30%			37%			7.1%	
<b>Carbon</b>	136.9	55%		121.8	54%		-11.0%	-1.9%	
<b>Nitrogen</b>	48.0	57%	3.61	41.8	50%	3.58	-13.0%	-7.0%	-0.9%
<b>Phosphorus</b>	29.0	65%	0.34	20.3	66%	0.31	-30.0%	0.8%	-7.8%
<b>Potassium</b>	67.1	51%	2.53	53.7	48%	2.61	-20.0%	-3.1%	3.0%
<b>Sulfur</b>	3.2	50%	0.21	2.9	38%	0.23	-9.4%	-11.8%	7.9%
<b>Calcium</b>	675.6	36%	0.66	659.5	56%	0.95	-2.4%	20.6%	45.2%
<b>Iron</b>	75.4	80%	150.45	68.6	74%	193.14	-9.0%	-6.0%	28.4%
<b>Zinc</b>	0.9		32.97	0.8		30.42	-10.7%		-7.7%
<b>Manganese</b>	1.9		24.99	1.7		29.32	-9.3%		17.3%
<b>Magnesium</b>	113.9		0.26	117.3		0.29	3.0%		8.9%
<b>Sodium</b>	5.0		0.02	5.1		0.01	2.6%		-42.9%
<b>Copper</b>	0.6		14.12	0.6		14.78	-3.5%		4.6%
<b>Aluminum</b>	128.4		36.20	129.7		408.71	1.0%		1029.1%
<b>Molybdenum</b>			2.74			3.77			37.7%
<b>Boron</b>			23.37			21.75			-6.9%

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**Roots to Shoots Summary Report- TNT HEF 2-3-0 & Super Salmon+ V8 Corn**

Sample Type	Untreated			TNT HEF 2-3-0 & Super Salmon+			% Change		
	Haney	Rhize	Tissue	Haney	Rhize	Tissue	Haney	Rhize	Tissue
<b>Health Overview</b>	11.8	54%	60	9.9	55%	46	-17%	2%	-13.58
<b>Community Structure</b>	11.8	68%		9.9	60%		-16.6%	-10.8%	
Number of Genera		2668.0			2941.7			10.3%	
Diversity		10.0%			52.0%			420.0%	
Evenness		4.3%			26.0%			500.0%	
Mycorrhizae Abundance		57%			42%			-14.7%	
Plant Stress Adaptation		82%			73%			-9.5%	
Fungal to Bacterial Ratio									
Ectomycorrhizal to Arbuscular Ratio									
1:1 Soil pH	6.6			6.8			3.0%		
Soil Health Calculation	11.8			9.9			-16.6%		
Organic Matter	3.9			3.9			1.7%		
1:1 Soluble Salt	0.1			0.1			-7.9%		
Organic C:N	10.7			11.1			3.2%		
<b>Respiration</b>	78.0	67%		63.2	50%		-19.0%	-16.9%	
High Oxygen Environment		67%			50%			-16.9%	
CO2-C	78.0			63.2			-19.0%		
<b>Environmental Stressors</b>		30%			37%			7.1%	
Anoxic Environment		30%			37%			7.1%	
<b>Carbon</b>	136.9	55%		121.8	54%		-11.0%	-1.9%	
CO2-C	78.0			63.2			-19.0%		
Organic Matter	3.9			3.9			1.7%		
Carbon Fixation		22%			39%			16.5%	
Organic Carbon Breakdown		66%			57%			-8.1%	
Methanogenesis		21%			35%			14.0%	
H2O Total Organic C	136.9			121.8			-11.0%		
% MAC	57.4			52.6			-8.3%		

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**Roots to Shoots Summary Report- TNT HEF 2-3-0 & Super Salmon+ V8 Corn**

Sample Type	Untreated			TNT HEF 2-3-0 & Super Salmon+			% Change		
	Haney	Rhize	Tissue	Haney	Rhize	Tissue	Haney	Rhize	Tissue
<b>Health Overview</b>	11.8	54%	60	9.9	55%	46	-17%	2%	-13.58
<b>Nitrogen</b>	48.0	57%	3.61	41.8	50%	3.58	-13.0%	-7.0%	-0.9%
Nitrogen Fixation		36%			34%			-2.1%	
Nodulating Bacteria		47%			41%			-5.4%	
Organic Nitrogen Breakdown		84%			72%			-12.5%	
H3A Ammonium	1.0			0.9			-5.4%		
Nitrification		42%			40%			-2.8%	
H3A Nitrate	6.3			5.5			-12.6%		
Denitrification		34%			44%			10.6%	
H2O Total N	21.1			18.5			-12.4%		
H2O Organic N	12.7			11.0			-13.8%		
H3A Inorganic Nitrogen	7.3			6.4			-11.6%		
Organic N Release	12.7			11.0			-13.8%		
Organic N Reserve	0.0			0.0					
Available N	48.0			41.8			-13.0%		
Total Nitrogen, % N			3.6			3.6			-0.9%
<b>Phosphorus</b>	29.0	65%	0.34	20.3	66%	0.31	-30.0%	0.8%	-7.8%
Phosphorus Solubilization		65%			66%			0.8%	
H3A Total Phosphorus	12.6			8.8			-30.0%		
H3A Inorganic Phosphorus	9.5			6.5			-30.9%		
H3A Organic Phosphorus	3.2			2.3			-27.2%		
Organic P Release	3.2			2.3			-27.2%		
Organic P Reserve	0.0			0.0					
Available P	29.0			20.3			-30.0%		
Phosphorus, % P			0.34			0.31			-7.8%

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**Roots to Shoots Summary Report- TNT HEF 2-3-0 & Super Salmon+ V8 Corn**

Sample Type	Untreated			TNT HEF 2-3-0 & Super Salmon+			% Change		
	Haney	Rhize	Tissue	Haney	Rhize	Tissue	Haney	Rhize	Tissue
<b>Health Overview</b>	11.8	54%	60	9.9	55%	46	-17%	2%	-13.58
<b>Potassium</b>	67.1	51%	2.53	53.7	48%	2.61	-20.0%	-3.1%	3.0%
Potassium Solubilization		51%			48%			-3.1%	
H3A ICAP Potassium	56.0			44.8			-20.0%		
Available K	67.1			53.7			-20.0%		
Potassium, % K			2.53			2.61			3.0%
<b>Sulfur</b>	3.2	50%	0.21	2.9	38%	0.23	-9.4%	-11.8%	7.9%
Sulfur Oxidation		31%			35%			4.4%	
Sulfur Reduction		31%			59%			28.1%	
H3A ICAP Sulfur	3.2			2.9			-9.4%		
Sulfur, % S			0.21			0.23			7.9%
<b>Calcium</b>	675.6	36%	0.66	659.5	56%	0.95	-2.4%	20.6%	45.2%
Calcium Transport		36%			56%			20.6%	
H3A ICAP Calcium	675.6			659.5			-2.4%		
Calcium, % Ca			0.66			0.95			45.2%
<b>Iron</b>	75.4	80%	150.45	68.6	74%	193.14	-9.0%	-6.0%	28.4%
Iron Acquisition		80%			74%			-6.0%	
H3A ICAP Iron	75.4			68.6			-9.0%		
Iron, ppm Fe			150.45			193.14			28.4%
<b>Zinc</b>	0.9		32.97	0.8		30.42	-10.7%		-7.7%
H3A ICAP Zinc	0.9			0.8			-10.7%		
Zinc, ppm Zn			32.97			30.42			-7.7%
<b>Manganese</b>	1.9		24.99	1.7		29.32	-9.3%		17.3%
H3A ICAP Manganese	1.9			1.7			-9.3%		
Manganese, ppm Mn			24.99			29.32			17.3%

Contact RhizeBio:

Phone: 919-351-2038

Email: support@rhizebio.com

**CUSTOMER INFORMATION**

<b>Name:</b>	TNT Farming Solutions	<b>Bill To:</b>	TNT Farming Solutions
<b>Email:</b>	info@tntfarmingsolutions.com	<b>Phone:</b>	(574) 532-6201

**Roots to Shoots Summary Report- TNT HEF 2-3-0 & Super Salmon+ V8 Corn**

Sample Type	Untreated			TNT HEF 2-3-0 & Super Salmon+			% Change		
	Haney	Rhize	Tissue	Haney	Rhize	Tissue	Haney	Rhize	Tissue
<b>Health Overview</b>	11.8	54%	60	9.9	55%	46	-17%	2%	-13.58
<b>Magnesium</b>	113.9		0.26	117.3		0.29	3.0%		8.9%
H3A ICAP Magnesium	113.9			117.3			3.0%		
Magnesium, % Mg			0.26			0.29			8.9%
<b>Sodium</b>	5.0		0.02	5.1		0.01	2.6%		-42.9%
H3A ICAP Sodium	5.0			5.1			2.6%		
Sodium, % Na			0.02			0.01			-42.9%
<b>Copper</b>	0.6		14.12	0.6		14.78	-3.5%		4.6%
H3A ICAP Copper	0.6			0.6			-3.5%		
Copper, ppm Cu			14.12			14.78			4.6%
<b>Aluminum</b>	128.4		36.20	129.7		408.71	1.0%		1029.1%
H3A ICAP Aluminum	128.4			129.7			1.0%		
Aluminum, ppm Al			36.20			408.71			1029.1%
<b>Molybdenum</b>			2.74			3.77			37.7%
Molybdenum, ppm Mo			2.74			3.77			37.7%
<b>Boron</b>			23.37			21.75			-6.9%
Boron, ppm B			23.37			21.75			-6.9%

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Phone: 919-351-2038

Email: support@rhizebio.com

CUSTOMER INFORMATION		CUSTOMER INFORMATION	
Name:	TNT Farming Solutions	Grower Name:	TNT Farming Solutions
Address:	6928 S Benham Rd Versailles, IN 47042	Field ID:	Ck 10
Phone:	(574) 532-6201	Crop Type:	Corn
Bill To:	TNT Farming Solutions	Crop Variety:	Corn

### Top 20 Bacterial Genera

AE = Aerobic AN = Anaerobic OA = Obligate Aerobic ON = Obligate Anaerobic F = Facultative MA = Microaerophilic ECM = Ecyomycorrhizal Fungi AMF = Arbuscular Mycorrhizal Fungi

Untreated			TNT HEF 2-3-0 & Super Salmon+			Response to TNT HEF 2-3-0 & Super Salmon+		
Genera	Abundance	Metabolism	Genera	Abundance	Metabolism	Genera	Change in Abundance	Metabolism
Pseudomonas	8.73%	aerobic	Pseudomonas	8.30%	aerobic	Pseudomonas	▼ -4.86%	aerobic
Burkholderia	8.15%	aerobic	Streptomyces	7.55%	aerobic	Burkholderia	▼ -51.36%	aerobic
Enterobacter	7.28%	aerobic	Bradyrhizobium	7.29%		Enterobacter	▼ -0.97%	aerobic
Streptomyces	7.07%	aerobic	Enterobacter	7.21%	aerobic	Streptomyces	▲ 6.73%	aerobic
Pantoea	5.73%	facultative	Nocardioides	4.50%	obligate aerobic	Pantoea	▼ -58.82%	facultative
Nocardioides	3.97%	obligate aerobic	Burkholderia	3.97%	aerobic	Nocardioides	▲ 13.30%	obligate aerobic
Priestia	3.66%		Priestia	3.70%	aerobic	Priestia	▲ 1.19%	
Bradyrhizobium	2.31%	aerobic	Pantoea	2.36%	facultative	Bradyrhizobium	▲ 215.49%	aerobic
Microbacterium	2.31%	aerobic	Arthrobacter	2.24%	obligate aerobic	Microbacterium	▼ -50.09%	aerobic
Leifsonia	1.86%		Kosakonia	1.95%	aerobic	Leifsonia	NA	
Glycomyces	1.78%	obligate aerobic	Rhizobium	1.92%	aerobic	Glycomyces	▼ -71.24%	obligate aerobic
Rhizobium	1.71%	aerobic	Microbacterium	1.15%	aerobic	Rhizobium	▲ 12.62%	aerobic
Luteibacter	1.71%	aerobic	Mycobacterium	1.08%	aerobic	Luteibacter	NA	aerobic
Agrobacterium	1.55%	aerobic	Kribbella	1.02%	obligate aerobic	Agrobacterium	▼ -44.65%	aerobic
Arthrobacter	1.32%	obligate aerobic	Acinetobacter	0.90%	obligate aerobic	Arthrobacter	▲ 69.74%	obligate aerobic
Mesorhizobium	1.12%	obligate aerobic	Agrobacterium	0.86%	aerobic	Mesorhizobium	▼ -29.41%	obligate aerobic
Acinetobacter	1.09%	obligate aerobic	Mesorhizobium	0.79%	obligate aerobic	Acinetobacter	▼ -17.55%	obligate aerobic
Sphingobium	1.01%	obligate aerobic	Sphingobium	0.71%	aerobic	Sphingobium	▼ -29.65%	obligate aerobic
Telluria	0.91%	aerobic	Sphingomonas	0.69%	aerobic	Telluria	▼ -46.97%	aerobic
Kribbella	0.90%	obligate aerobic	Variovorax	0.67%		Kribbella	▲ 12.87%	obligate aerobic

### Top 20 Fungal Genera

AE = Aerobic AN = Anaerobic OA = Obligate Aerobic ON = Obligate Anaerobic F = Facultative MA = Microaerophilic ECM = Ecyomycorrhizal Fungi AMF = Arbuscular Mycorrhizal Fungi

Untreated			TNT HEF 2-3-0 & Super Salmon+			Response to TNT HEF 2-3-0 & Super Salmon+		
Genera	Abundance	Metabolism	Genera	Abundance	Metabolism	Genera	Change in Abundance	Metabolism
Penicillium	2.49%	aerobic	Talaromyces	0.28%	aerobic	Penicillium	▼ -92.06%	aerobic
Fusarium	0.22%	aerobic	Aspergillus	0.24%	facultative	Fusarium	▼ -80.03%	aerobic
Talaromyces	0.22%	aerobic	Penicillium	0.20%	aerobic	Talaromyces	▲ 27.58%	aerobic
Gongronella	0.06%		Trichoderma	0.08%		Gongronella	▼ -27.01%	
Trichoderma	0.05%		Botryosphaeria	0.05%	aerobic	Trichoderma	▲ 51.30%	
Aspergillus	0.05%	facultative	Mortierella	0.05%		Aspergillus	▲ 393.06%	facultative
Schizophyllum	0.04%		Fusarium	0.04%	aerobic	Schizophyllum	NA	
Furcaterigmium	0.04%		Epicoccum	0.04%	NA	Furcaterigmium	▼ -53.91%	
Mucor	0.04%		Gongronella	0.04%		Mucor	▲ 2.70%	
Gigaspora	0.04%	AMF	Gigaspora	0.04%	AMF	Gigaspora	▲ 14.02%	AMF
Alternaria	0.03%	aerobic	Alternaria	0.04%	aerobic	Alternaria	▲ 11.54%	aerobic
Diaporthe	0.03%		Mucor	0.04%		Diaporthe	▲ 8.05%	
Pochonia	0.03%	aerobic	Rhodotorula	0.03%		Pochonia	▼ -57.50%	aerobic
Colletotrichum	0.02%		Colletotrichum	0.03%		Colletotrichum	▲ 43.48%	
Chaetomium	0.02%		Diaporthe	0.03%		Chaetomium	NA	
Cantharellus	0.02%	aerobic	Mycena	0.02%		Cantharellus	▼ -51.56%	aerobic
Podila	0.02%		Plectosphaerella	0.02%		Podila	▼ -44.26%	
Rhizopus	0.02%	ECM	Furcaterigmium	0.02%		Rhizopus	NA	ECM
Puccinia	0.01%		Ceratobasidium	0.01%	NA	Puccinia	NA	
Plectosphaerella	0.01%		Saitozyma	0.01%	facultative	Plectosphaerella	▲ 34.88%	



**Roots to Shoots Summary Report- TNT HEF 2-3-0 & Super Salmon+ V8 Corn Pathogen Screening**

**Untreated**

**TNT HEF 2-3-0 & Super Salmon+**

Average Number of Abundant Pathogens Identified: 17.7	
Pathogen Species	Disease Common Name
Replicate 3	Globisporangium ultimum Pythium Root Rot Complex
	Phoma spp. Phoma Leaf Spot
	Phyllachora maydis Tar Spot
	Lasiodiplodia theobromae Black Kernel Rot
	Hoplolaimus columbus Lance Nematode
	Pseudomonas syringae pv. syringae Holcus Spot
	Globisporangium paroecandrum Pythium Root Rot Complex
	Phytopythium helicoides Pythium Root Rot
	Puccinia polysora Southern Rust
	Peronosclerospora sorghi Sorghum Downy Mildew
	Robbsia andropogonis Bacterial Stripe and Leaf Spot
	Diabrotica virgifera Western Corn Rootworm

Average Number of Abundant Pathogens Identified: 9.3	
Pathogen Species	Disease Common Name
	Sclerospora graminicola Graminicola Downy Mildew
	Puccinia polysora Southern Rust
	Pratylenchus spp. Root Lesion Nematode
	Diabrotica virgifera Western Corn Rootworm