Philip Wallace Farms

Case # WPC14-0026

Permit # TN0081591

2016

CAFO ANNUAL REPORT

Philip Wallace Farm	036° 13'22.26	088°50'27.38W	2016
NAME OF FACILITY	LATITUDE	LONGITUDE	YEAR
800 Ramey Rd, Sharon, TN. 38255	Weakley	TN 0081591	
SITE LOCATION	COUNTY	PERMIT TRACKING #	

The permittee must submit an annual report between January 1 and February 15 that includes:

The number and types of animals on site whether in open confinement or housed under roof,

Estimated amount of total manure and/or litter generated by the CAFO in previous calendar year (tons),

Estimated amount of total manure, and/or litter transferred to a third party by the CAFO in the previous calendar year (tons),

Total number of acres for land application covered by the nutrient management plan;

Total number of acres under control of the CAFO that were used for land application of manure and/or litter in the previous calendar year,

summary of all manure and/or litter to waters of the state from the production area that have occurred in the previous calendar year, including date, time, and approximate volume

A statement indicating whether the current version of the CAFO's comprehensive nutrient management plan was developed or approved by a certified nutrient management planner.

Annual reports must be submitted to the division at the appropriate TDEC EFO for the county where the CAFO is located, and to TDA at the addresses listed below.

CAFO Annual Report
TDEC - Division of Water Pollution Control
1625 Hollywood Drive
Jackson, TN 38305-2222

Tennessee Department of Environment and Conservation
Tennessee Tower 11th Floor
312 Rosa Parks Avenue
Nashville, TN 37243

All NOIs, reports, or information submitted to the commissioner shall be signed and certified by the persons identified in 1200-4-5-.05(6)(a-c), making the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Philip Wallace Owner	Philip A. Wallace	1/10/2016
Print Name / Title	Signature	Date

Wallace Farms 2016 Summary

There were approximately 2000 head of wean to finish swine produced in 2016 at Wallace Farms. Manure, wash, and rainfall accumulation from these animals should be approximately 1,244,082 gallons. No manure was transferred to a third party.

The NMP list 25.3 acres for land application. I used 24 acres to apply the contents of the lagoon. Only dry fertilizer was applied on field 1A. No spills of manure entered the waterways of the State of Tennessee in 2016.

I used Helena Chemical Company for my fertilizer, soil, manure, and tissue sample needs. All samples were sent to Waypoint Analytical.

My goal for the year was to produce 7 tons of hay per acre on the 25.3 acres. The 25.3 acres produced approximately 6 tons per acre.

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HELENA

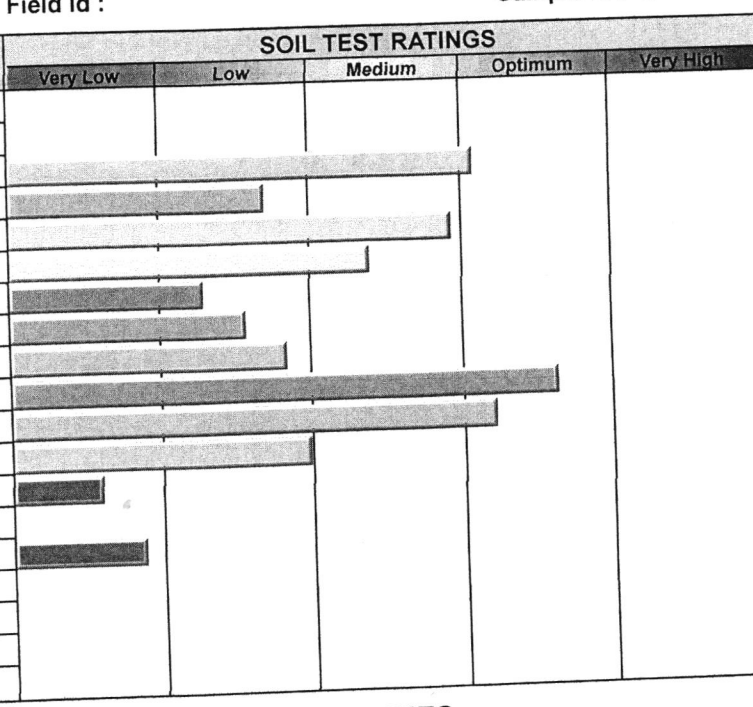
SOIL ANALYSIS

Client : Helena Chemical (Sharon) Ken 4874 Hwy 45 E Sharon TN 38255	Grower : Philip Wallace Farm	Report No: 16-342-0560 Cust No: 18807 Date Printed: 12/08/2016 Date Received : 12/07/2016 PO: Page : 1 of 5

Lab Number : 29349 **Field Id :** **Sample Id :** 1A

Test	Method	Results
Soil pH	1:1	6.3
Buffer pH	BPH	7.87
Phosphorus (P)	M3	32 ppm
Potassium (K)	M3	79 ppm
Calcium (Ca)	M3	774 ppm
Magnesium (Mg)	M3	86 ppm
Sulfur (S)	M3	6 ppm
Boron (B)	M3	0.3 ppm
Copper (Cu)	M3	0.8 ppm
Iron (Fe)	M3	165 ppm
Manganese (Mn)	M3	167 ppm
Zinc (Zn)	M3	1.5 ppm
Sodium (Na)	M3	16 ppm
Soluble Salts		
Organic Matter	LOI	1.7 % ENR 78
Nitrate Nitrogen		

SOIL TEST RATINGS



Calculated Cation Exchange Capacity

5.5 meq/100g

%Saturation

	%sat	meq
K	3.7	0.2
Ca	70.4	3.9
Mg	13.0	0.7
H	10.9	0.6
Na	1.3	0.1

K/Mg Ratio: 0.29

Ca/Mg Ratio: 5.42

SOIL FERTILITY GUIDELINES

Crop : Hybrid Bermudagrass Hay **Yield Goal :** 7 tons/acre **Rec Units:** LB/ACRE

(lbs)	LIME (tons)	N	P_2O_5	K_2O	Mg	S	B	Cu	Mn	Zn	Fe
0	0	350	83	269	0	10	1.0	1.0	0	2.0	

Crop : **Rec Units:**

Comments :

Hybrid Bermudagrass Hay

· For the establishment of bermudagrass or warm season grasses, apply the phosphorus and potassium and 30 to 50 lbs N/acre before sprigging or seeding.

· After seedling emergence or sprigs start to grow, topdress with 40-60 lbs N/Acre. Topdress with an additional 30-40 lbs N/Acre in August or early September if needed.

· For grass hay apply 50 lbs. N/Acre for each ton of expected yield. The normal range is 200-500 lbs. N/Acre. Apply 75-100 lbs. N/Acre when spring growth begins and 75-100 lbs. N/Acre after each harvest.

· On light soils with high grass hay yields, soil test annually to maintain soil pH and nutrient level.

· For soils low in sulfur, apply 20-40 lbs of sulfur as a sulfate in the spring with the nitrogen.

· For grass hay or pasture needing high rates split the P and K application. Apply 1/2 in the spring and 1/2 in late summer.

M3 - Mehlich 3 BPH - Lime Index LOI - Loss On Ignition 1:1 - Water pH

Analysis prepared by: Waypoint Analytical Tennessee, Inc.

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HELENA

SOIL ANALYSIS

Client : Helena Chemical (Sharon) Ken 4874 Hwy 45 E Sharon TN 38255	Grower : Philip Wallace Farm	Report No: 16-342-0560 Cust No: 18807 Date Printed: 12/08/2016 Date Received : 12/07/2016 PO: Page : 2 of 5

Lab Number : 29351 **Field Id :** **Sample Id :** 2A

Test	Method	Results
Soil pH	1:1	5.7
Buffer pH	BPH	7.81
Phosphorus (P)	M3	46 ppm
Potassium (K)	M3	134 ppm
Calcium (Ca)	M3	663 ppm
Magnesium (Mg)	M3	74 ppm
Sulfur (S)	M3	8 ppm
Boron (B)	M3	0.3 ppm
Copper (Cu)	M3	0.7 ppm
Iron (Fe)	M3	168 ppm
Manganese (Mn)	M3	150 ppm
Zinc (Zn)	M3	1.3 ppm
Sodium (Na)	M3	27 ppm
Soluble Salts		
Organic Matter	LOI	2.0 % ENR 84
Nitrate Nitrogen		

SOIL TEST RATINGS: Very Low | Low | Medium | Optimum | Very High

Calculated Cation Exchange Capacity: **5.6** meq/100g

%Saturation

	%sat	meq
K	6.1	0.3
Ca	59.2	3.3
Mg	11.0	0.6
H	21.4	1.2
Na	2.1	0.1

K/Mg Ratio: 0.50

Ca/Mg Ratio: 5.38

SOIL FERTILITY GUIDELINES

Crop : Hybrid Bermudagrass Hay **Yield Goal :** 7 tons/acre **Rec Units:** LB/ACRE

LIME (lbs)	LIME (tons)	N	P_2O_5	K_2O	Mg	S	B	Cu	Mn	Zn	Fe
1500	0.8	350	59	215	0	10	1.0	1.0	0	2.0	

Crop : **Rec Units:**

Comments :

Hybrid Bermudagrass Hay

Limestone application is targeted to bring soil pH to 6.5.

· For the establishment of bermudagrass or warm season grasses, apply the phosphorus and potassium and 30 to 50 lbs N/acre before sprigging or seeding.

· After seedling emergence or sprigs start to grow, topdress with 40-60 lbs N/Acre. Topdress with an additional 30-40 lbs N/Acre in August or early September if needed.

· For grass hay apply 50 lbs. N/Acre for each ton of expected yield. The normal range is 200-500 lbs. N/Acre. Apply 75-100 lbs. N/Acre when spring growth begins and 75-100 lbs. N/Acre after each harvest.

· On light soils with high grass hay yields, soil test annually to maintain soil pH and nutrient level.

· For soils low in sulfur, apply 20-40 lbs of sulfur as a sulfate in the spring with the nitrogen.

· For grass hay or pasture needing high rates split the P and K application. Apply 1/2 in the spring and 1/2 in late summer.

M3 - Mehlich 3 BPH - Lime Index LOI - Loss On Ignition 1:1 - Water pH

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HELENA

SOIL ANALYSIS

Client : Helena Chemical (Sharon) Ken 4874 Hwy 45 E Sharon TN 38255	Grower : Philip Wallace Farm	Report No: 16-342-0560 Cust No: 18807 Date Printed: 12/08/2016 Date Received : 12/07/2016 PO: Page : 3 of 5

Lab Number : 29352 **Field Id :** **Sample Id :** 3BE

Test	Method	Results	Very Low	Low	Medium	Optimum	Very High
Soil pH	1:1	6.5					
Buffer pH							
Phosphorus (P)	M3	46 ppm					
Potassium (K)	M3	122 ppm					
Calcium (Ca)	M3	640 ppm					
Magnesium (Mg)	M3	117 ppm					
Sulfur (S)	M3	4 ppm					
Boron (B)	M3	0.3 ppm					
Copper (Cu)	M3	0.8 ppm					
Iron (Fe)	M3	153 ppm					
Manganese (Mn)	M3	104 ppm					
Zinc (Zn)	M3	1.1 ppm					
Sodium (Na)	M3	33 ppm					
Soluble Salts							
Organic Matter	LOI	1.5 % ENR 74					
Nitrate Nitrogen							

SOIL TEST RATINGS

Calculated Cation Exchange Capacity

5.0 meq/100g

%Saturation

	%sat	meq
K	6.3	0.3
Ca	64.0	3.2
Mg	19.5	1.0
H	8.0	0.4
Na	2.9	0.1

K/Mg Ratio: 0.30

Ca/Mg Ratio: 3.28

SOIL FERTILITY GUIDELINES

Crop : Hybrid Bermudagrass Hay **Yield Goal :** 7 tons/acre **Rec Units:** LB/ACRE

(lbs)	LIME (tons)	N	P_2O_5	K_2O	Mg	S	B	Cu	Mn	Zn	Fe
0	0	350	59	231	0	10	1.0	1.0	0	2.0	

Crop : **Rec Units:**

Comments :

Hybrid Bermudagrass Hay

· For the establishment of bermudagrass or warm season grasses, apply the phosphorus and potassium and 30 to 50 lbs N/acre before sprigging or seeding.

· After seedling emergence or sprigs start to grow, topdress with 40-60 lbs N/Acre. Topdress with an additional 30-40 lbs N/Acre in August or early September if needed.

· For grass hay apply 50 lbs. N/Acre for each ton of expected yield. The normal range is 200-500 lbs. N/Acre. Apply 75-100 lbs. N/Acre when spring growth begins and 75-100 lbs. N/Acre after each harvest.

· On light soils with high grass hay yields, soil test annually to maintain soil pH and nutrient level.

· For soils low in sulfur, apply 20-40 lbs of sulfur as a sulfate in the spring with the nitrogen.

· For grass hay or pasture needing high rates split the P and K application. Apply 1/2 in the spring and 1/2 in late summer.

M3 - Mehlich 3 BPH - Lime Index LOI - Loss On Ignition 1:1 - Water pH

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SOIL ANALYSIS

Client : Helena Chemical (Sharon) Ken 4874 Hwy 45 E Sharon TN 38255	Grower : Philip Wallace Farm	Report No: 16-342-0560 Cust No: 18807 Date Printed: 12/08/2016 Date Received : 12/07/2016 PO: Page : 4 of 5

Lab Number : 29353 **Field Id :** **Sample Id :** 3BW

Test	Method	Results
Soil pH	1:1	5.9
Buffer pH	BPH	7.82
Phosphorus (P)	M3	55 ppm
Potassium (K)	M3	191 ppm
Calcium (Ca)	M3	748 ppm
Magnesium (Mg)	M3	129 ppm
Sulfur (S)	M3	12 ppm
Boron (B)	M3	0.4 ppm
Copper (Cu)	M3	0.9 ppm
Iron (Fe)	M3	168 ppm
Manganese (Mn)	M3	138 ppm
Zinc (Zn)	M3	1.8 ppm
Sodium (Na)	M3	32 ppm
Soluble Salts		
Organic Matter	LOI	2.0 % ENR 84
Nitrate Nitrogen		

SOIL TEST RATINGS: Very Low | Low | Medium | Optimum | Very High

Calculated Cation Exchange Capacity: 6.5 meq/100g

%Saturation

	%sat	meq
K	7.5	0.5
Ca	57.5	3.7
Mg	16.5	1.1
H	16.9	1.1
Na	2.1	0.1

K/Mg Ratio: 0.45

Ca/Mg Ratio: 3.48

SOIL FERTILITY GUIDELINES

Crop : Hybrid Bermudagrass Hay **Yield Goal :** 7 tons/acre **Rec Units:** LB/ACRE

LIME (lbs)	LIME (tons)	N	P_2O_5	K_2O	Mg	S	B	Cu	Mn	Zn	Fe
1000	0.5	350	30	50	0	9	0.5	0	0	0	

Crop : **Rec Units:**

Comments :

Hybrid Bermudagrass Hay

Limestone application is targeted to bring soil pH to 6.5.

· For the establishment of bermudagrass or warm season grasses, apply the phosphorus and potassium and 30 to 50 lbs N/acre before sprigging or seeding.

· After seedling emergence or sprigs start to grow, topdress with 40-60 lbs N/Acre. Topdress with an additional 30-40 lbs N/Acre in August or early September if needed.

· For grass hay apply 50 lbs. N/Acre for each ton of expected yield. The normal range is 200-500 lbs. N/Acre. Apply 75-100 lbs. N/Acre when spring growth begins and 75-100 lbs. N/Acre after each harvest.

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M3 - Mehlich 3 BPH - Lime Index LOI - Loss On Ignition 1:1 - Water pH

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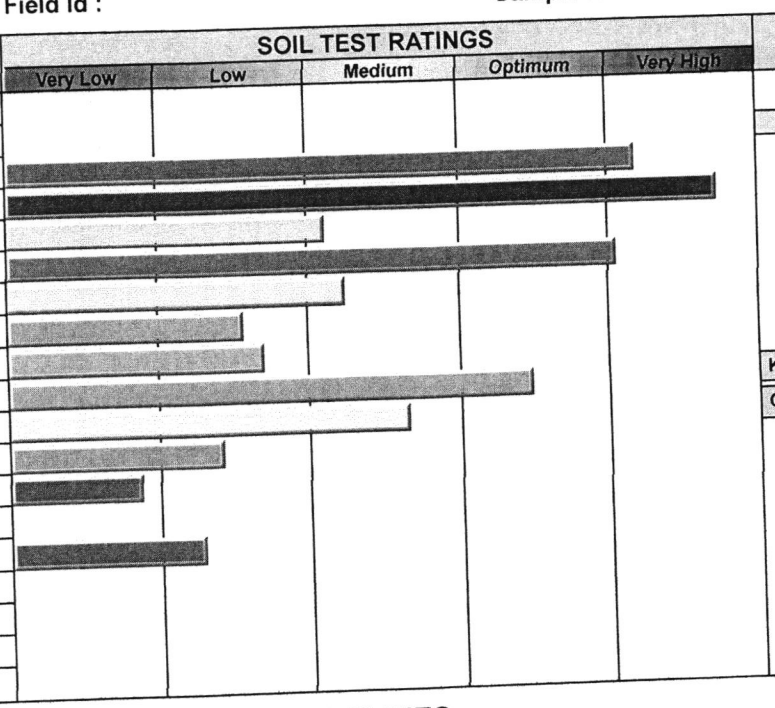
SOIL ANALYSIS

Client : Helena Chemical (Sharon) Ken 4874 Hwy 45 E Sharon TN 38255	Grower : Philip Wallace Farm	Report No: 16-342-0560 Cust No: 18807 Date Printed: 12/08/2016 Date Received : 12/07/2016 PO: Page : 5 of 5

Lab Number : 29354 **Field Id :** **Sample Id :** 3C

Test	Method	Results
Soil pH	1:1	5.8
Buffer pH	BPH	7.77
Phosphorus (P)	M3	59 ppm
Potassium (K)	M3	278 ppm
Calcium (Ca)	M3	861 ppm
Magnesium (Mg)	M3	185 ppm
Sulfur (S)	M3	13 ppm
Boron (B)	M3	0.3 ppm
Copper (Cu)	M3	0.7 ppm
Iron (Fe)	M3	158 ppm
Manganese (Mn)	M3	111 ppm
Zinc (Zn)	M3	0.9 ppm
Sodium (Na)	M3	47 ppm
Soluble Salts		
Organic Matter	LOI	2.2 % ENR 88
Nitrate Nitrogen		



Calculated Cation Exchange Capacity: 8.4 meq/100g

%Saturation

	%sat	meq
K	8.5	0.7
Ca	51.3	4.3
Mg	18.4	1.5
H	19.0	1.6
Na	2.4	0.2

K/Mg Ratio: 0.47

Ca/Mg Ratio: 2.79

SOIL FERTILITY GUIDELINES

Crop : Hybrid Bermudagrass Hay **Yield Goal :** 7 tons/acre **Rec Units:** LB/ACRE

LIME (lbs)	LIME (tons)	N	P_2O_5	K_2O	Mg	S	B	Cu	Mn	Zn	Fe
1500	0.8	350	30	0	0	9	1.0	1.0	0	2.2	

Crop : **Rec Units:**

Comments :

Hybrid Bermudagrass Hay

Limestone application is targeted to bring soil pH to 6.5.

- For the establishment of bermudagrass or warm season grasses, apply the phosphorus and potassium and 30 to 50 lbs N/acre before sprigging or seeding.
- After seedling emergence or sprigs start to grow, topdress with 40-60 lbs N/Acre. Topdress with an additional 30-40 lbs N/Acre in August or early September if needed.
- For grass hay apply 50 lbs. N/Acre for each ton of expected yield. The normal range is 200-500 lbs. N/Acre. Apply 75-100 lbs. N/Acre when spring growth begins and 75-100 lbs. N/Acre after each harvest.
- On light soils with high grass hay yields, soil test annually to maintain soil pH and nutrient level.
- For soils low in sulfur, apply 20-40 lbs of sulfur as a sulfate in the spring with the nitrogen.
- For grass hay or pasture needing high rates split the P and K application. Apply 1/2 in the spring and 1/2 in late summer.

M3 - Mehlich 3 BPH - Lime Index LOI - Loss On Ignition 1:1 - Water pH

Analysis prepared by: Waypoint Analytical Tennessee, Inc.

Report Number
16-160-3187

Lab No:
180141

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HELENA

PLANT ANALYSIS

Customer Account Number : **18807**

Send To : Helena Chemical (Sharon)
Ken
4874 Hwy 45 E
Sharon TN 38255

Grower :
Philip Wallace Farm

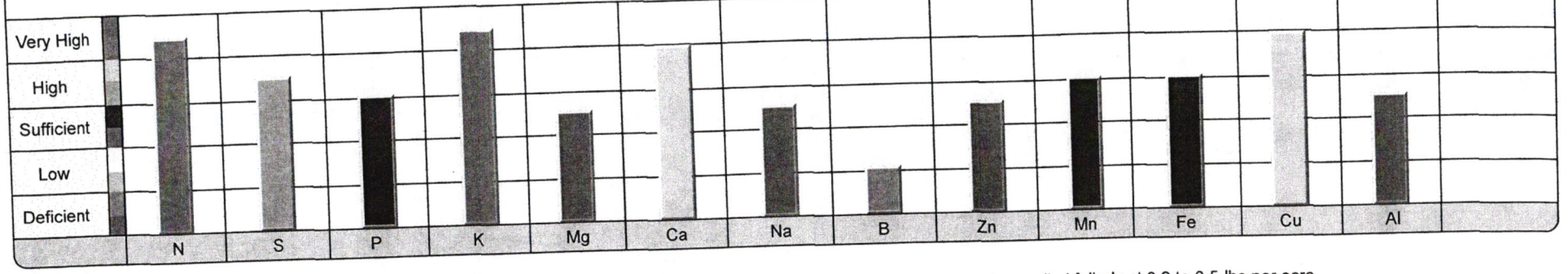
Report Date : 6/14/2016

Farm ID: Wallace
Field id:
Sample Id : **1A** 1st cut

Crop : **Bermudagrass, Hybrid**
Growth Stage : **4 to 5 week old plants**

	Nitrogen %	Sulfur %	Phosphorus %	Potassium %	Magnesium %	Calcium %	Sodium %	Boron ppm	Zinc ppm	Manganese ppm	Iron ppm	Copper ppm	Aluminum ppm
Analysis	3.53	0.31	0.40	3.25	0.18	0.62	0.04	3	41	296	143	29	56
Normal Range	2.00	0.15	0.20	1.50	0.14	0.25	0.00	5	15	25	50	5	0
	2.60	0.25	0.40	4.39	0.25	0.50	0.20	16	71	301	201	20	300

	N/S	N/K	P/S	P/Zn	K/Mg	K/Mn	Ca/B	Fe/Mn	Ca/K	Ca/Mg
Actual Ratio	11.4	1.1	1.3	97.6	18.1	109.8	2,066.7	0.5	0.2	3.4
Expected Ratio	11.5	0.8	1.5	69.8	15.1	180.7	357.3	0.8	0.1	1.9



Comments :
02024) These plants are low or deficient in boron. This may be the result of low soil boron or droughty conditions. Boron may be applied foliarly at 0.2 to 0.5 lbs per acre.
02114) One or more nutrients are very high at this time. Please monitor.

Report Number
16-160-3187

Lab No:
180142

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HELENA

PLANT ANALYSIS

Customer Account Number : **18807**

Send To : Helena Chemical (Sharon)
Ken
4874 Hwy 45 E
Sharon TN 38255

Grower :
Philip Wallace Farm

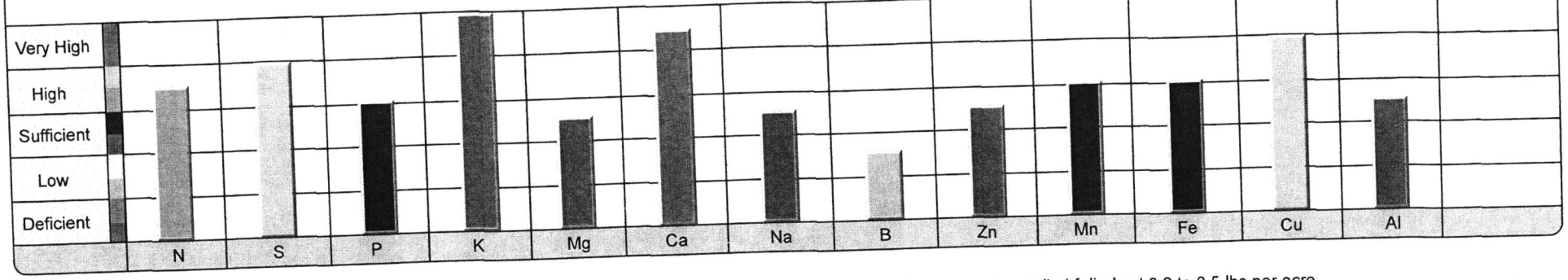
Report Date : 6/14/2016

Farm ID: Wallace
Field id:
Sample Id : **2A** 1st cut

Crop : **Bermudagrass, Hybrid**
Growth Stage : **4 to 5 week old plants**

	Nitrogen %	Sulfur %	Phosphorus %	Potassium %	Magnesium %	Calcium %	Sodium %	Boron ppm	Zinc ppm	Manganese ppm	Iron ppm	Copper ppm	Aluminum ppm
Analysis	2.89	0.38	0.38	3.43	0.18	0.73	0.06	4	42	266	143	26	34
Normal Range	2.00	0.15	0.20	1.50	0.14	0.25	0.00	5	15	25	50	5	0
	2.60	0.25	0.40	4.39	0.25	0.50	0.20	16	71	301	201	20	300

	N/S	N/K	P/S	P/Zn	K/Mg	K/Mn	Ca/B	Fe/Mn	Ca/K	Ca/Mg
Actual Ratio	7.6	0.8	1.0	90.5	19.1	128.9	1,825.0	0.5	0.2	4.1
Expected Ratio	11.5	0.8	1.5	69.8	15.1	180.7	357.3	0.8	0.1	1.9



Comments :
02024) These plants are low or deficient in boron. This may be the result of low soil boron or droughty conditions. Boron may be applied foliarly at 0.2 to 0.5 lbs per acre.
02114) One or more nutrients are very high at this time. Please monitor.

Report Number
16-160-3187

Lab No:
180144

Waypoint ANALYTICAL

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HELENA

PLANT ANALYSIS

Customer Account Number : **18807**

Send To : Helena Chemical (Sharon)
Ken
4874 Hwy 45 E
Sharon TN 38255

Grower :
Philip Wallace Farm

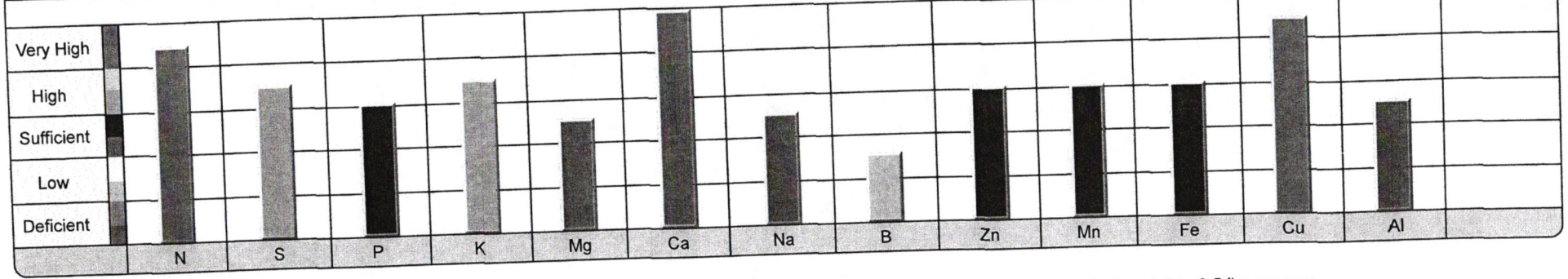
Report Date : 6/14/2016

Farm ID: Wallace
Field id:
Sample Id : **3BE** 1st cut

Crop : **Bermudagrass, Hybrid**
Growth Stage : **4 to 5 week old plants**

	Nitrogen %	Sulfur %	Phosphorus %	Potassium %	Magnesium %	Calcium %	Sodium %	Boron ppm	Zinc ppm	Manganese ppm	Iron ppm	Copper ppm	Aluminum ppm
Analysis	3.60	0.34	0.39	2.47	0.16	0.81	0.04	4	67	184	174	31	107
Normal Range	2.00	0.15	0.20	1.50	0.14	0.25	0.00	5	15	25	50	5	0
	2.60	0.25	0.40	4.39	0.25	0.50	0.20	16	71	301	201	20	300

	N/S	N/K	P/S	P/Zn	K/Mg	K/Mn	Ca/B	Fe/Mn	Ca/K	Ca/Mg
Actual Ratio	10.6	1.5	1.1	58.2	15.4	134.2	2,025.0	0.9	0.3	5.1
Expected Ratio	11.5	0.8	1.5	69.8	15.1	180.7	357.3	0.8	0.1	1.9



Comments :
02024) These plants are low or deficient in boron. This may be the result of low soil boron or droughty conditions. Boron may be applied foliarly at 0.2 to 0.5 lbs per acre.
02114) One or more nutrients are very high at this time. Please monitor.

Report Number
16-160-3187

Lab No:
180145

Waypoint ANALYTICAL

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HELENA

PLANT ANALYSIS

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Send To : Helena Chemical (Sharon)
Ken
4874 Hwy 45 E
Sharon TN 38255

Grower :
Philip Wallace Farm

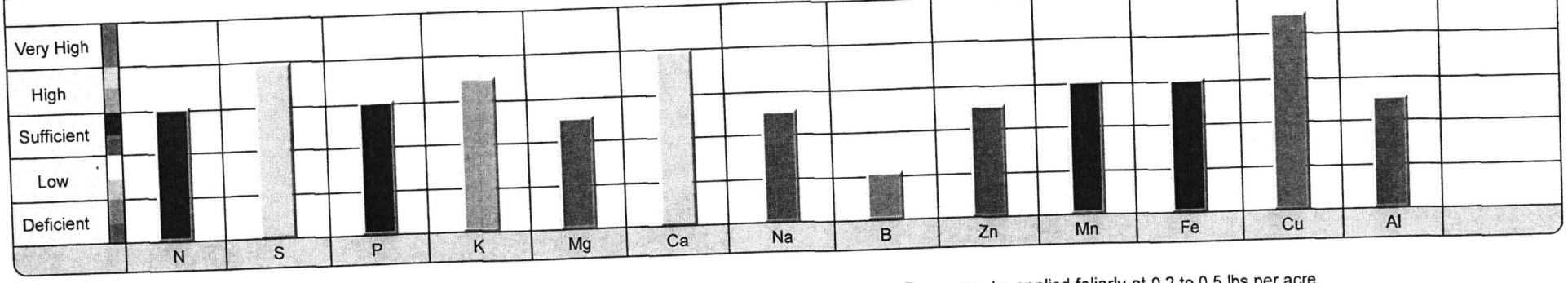
Report Date : 6/14/2016

Farm ID: Wallace
Field id:
Sample Id : **3BW** 1st cut

Crop : **Bermudagrass, Hybrid**
Growth Stage : **4 to 5 week old plants**

	Nitrogen %	Sulfur %	Phosphorus %	Potassium %	Magnesium %	Calcium %	Sodium %	Boron ppm	Zinc ppm	Manganese ppm	Iron ppm	Copper ppm	Aluminum ppm
Analysis	2.41	0.41	0.34	2.67	0.15	0.66	0.04	3	29	169	160	30	90
Normal Range	2.00	0.15	0.20	1.50	0.14	0.25	0.00	5	15	25	50	5	0
	2.60	0.25	0.40	4.39	0.25	0.50	0.20	16	71	301	201	20	300

	N/S	N/K	P/S	P/Zn	K/Mg	K/Mn	Ca/B	Fe/Mn	Ca/K	Ca/Mg
Actual Ratio	5.9	0.9	0.8	117.2	17.8	158.0	2,200.0	0.9	0.2	4.4
Expected Ratio	11.5	0.8	1.5	69.8	15.1	180.7	357.3	0.8	0.1	1.9



Comments :
02024) These plants are low or deficient in boron. This may be the result of low soil boron or droughty conditions. Boron may be applied foliarly at 0.2 to 0.5 lbs per acre.
02114) One or more nutrients are very high at this time. Please monitor.

Report Number
16-160-3187

Lab No:
180143

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

HELENA

PLANT ANALYSIS

Customer Account Number : **18807**

Send To : Helena Chemical (Sharon)
Ken
4874 Hwy 45 E
Sharon TN 38255

Grower :
Philip Wallace Farm

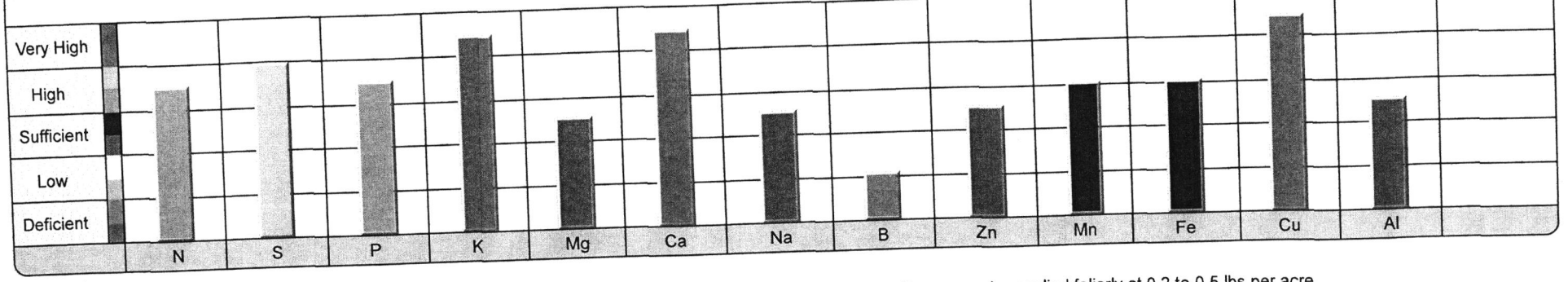
Report Date : 6/14/2016

Farm ID: Wallace
Field id:
Sample Id : **3C** 1st cut

Crop : **Bermudagrass, Hybrid**
Growth Stage : **4 to 5 week old plants**

	Nitrogen %	Sulfur %	Phosphorus %	Potassium %	Magnesium %	Calcium %	Sodium %	Boron ppm	Zinc ppm	Manganese ppm	Iron ppm	Copper ppm	Aluminum ppm
Analysis	2.94	0.46	0.42	3.19	0.17	0.71	0.05	3	38	243	171	30	51
Normal Range	2.00 2.60	0.15 0.25	0.20 0.40	1.50 4.39	0.14 0.25	0.25 0.50	0.00 0.20	5 16	15 71	25 301	50 201	5 20	0 300

	N/S	N/K	P/S	P/Zn	K/Mg	K/Mn	Ca/B	Fe/Mn	Ca/K	Ca/Mg
Actual Ratio	6.4	0.9	0.9	110.5	18.8	131.3	2,366.7	0.7	0.2	4.2
Expected Ratio	11.5	0.8	1.5	69.8	15.1	180.7	357.3	0.8	0.1	1.9



Comments :
02024) These plants are low or deficient in boron. This may be the result of low soil boron or droughty conditions. Boron may be applied foliarly at 0.2 to 0.5 lbs per acre.
02114) One or more nutrients are very high at this time. Please monitor.

Report Number
16-215-3052

Lab No:
205022

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

HELENA

PLANT ANALYSIS

Customer Account Number : **18807**

Send To : Helena Chemical (Sharon)
Ken
4874 Hwy 45 E
Sharon TN 38255

Grower :
Philip Wallace Farm

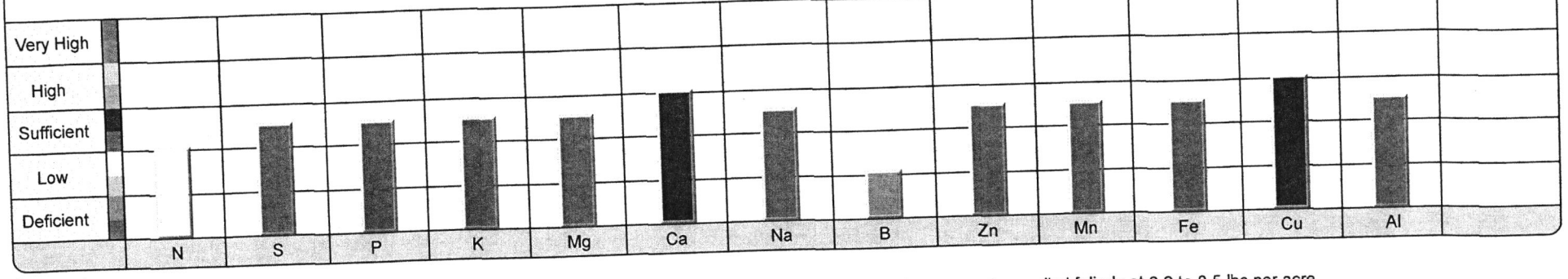
Report Date : 8/3/2016

Field id:
Sample Id : **1A** 2nd cutting

Crop : **Bermudagrass, Hybrid**
Growth Stage : **4 to 5 week old plants**

	Nitrogen %	Sulfur %	Phosphorus %	Potassium %	Magnesium %	Calcium %	Sodium %	Boron ppm	Zinc ppm	Manganese ppm	Iron ppm	Copper ppm	Aluminum ppm
Analysis	1.88	0.19	0.24	1.61	0.17	0.50	0.04	2	27	46	99	18	84
Normal Range	2.00	0.15	0.20	1.50	0.14	0.25	0.00	5	15	25	50	5	0
	2.60	0.25	0.40	4.39	0.25	0.50	0.20	16	71	301	201	20	300

	N/S	N/K	P/S	P/Zn	K/Mg	K/Mn	Ca/B	Fe/Mn	Ca/K	Ca/Mg
Actual Ratio	9.9	1.2	1.3	88.9	9.5	350.0	2,500.0	2.2	0.3	2.9
Expected Ratio	11.5	0.8	1.5	69.8	15.1	180.7	357.3	0.8	0.1	1.9



Comments :

02024) These plants are low or deficient in boron. This may be the result of low soil boron or droughty conditions. Boron may be applied foliarly at 0.2 to 0.5 lbs per acre.

02015) These plants are low or deficient in nitrogen. This condition could be due to inadequate nitrogen fertilization, poor drainage, excessive rainfall or leaching.

02084) Additional nitrogen may be supplied to the crop with sidedress or topdress applications or in irrigation water. Apply at the rate of 20 to 50 lbs per acre. Repeated applications may be necessary.

Report Number
16-215-3052

Lab No:
205023

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
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HELENA

PLANT ANALYSIS

Customer Account Number : **18807**

Send To : Helena Chemical (Sharon)
Ken
4874 Hwy 45 E
Sharon TN 38255

Grower :
Philip Wallace Farm

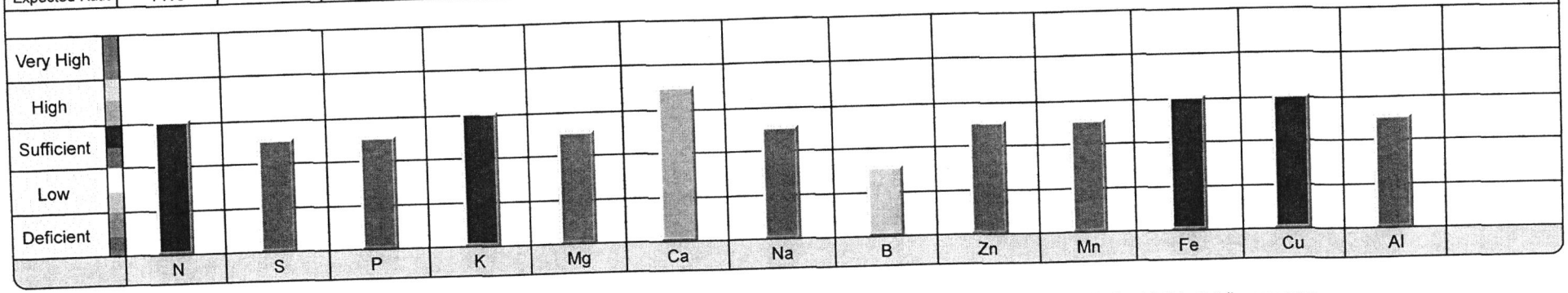
Report Date : 8/3/2016

Field id:
Sample Id : **2A** 2nd

Crop : **Bermudagrass, Hybrid**
Growth Stage : **4 to 5 week old plants**

	Nitrogen %	Sulfur %	Phosphorus %	Potassium %	Magnesium %	Calcium %	Sodium %	Boron ppm	Zinc ppm	Manganese ppm	Iron ppm	Copper ppm	Aluminum ppm
Analysis	2.43	0.19	0.21	2.05	0.19	0.56	0.05	4	36	140	135	20	73
Normal Range	2.00	0.15	0.20	1.50	0.14	0.25	0.00	5	15	25	50	5	0
	2.60	0.25	0.40	4.39	0.25	0.50	0.20	16	71	301	201	20	300

	N/S	N/K	P/S	P/Zn	K/Mg	K/Mn	Ca/B	Fe/Mn	Ca/K	Ca/Mg
Actual Ratio	12.8	1.2	1.1	58.3	10.8	146.4	1,400.0	1.0	0.3	2.9
Expected Ratio	11.5	0.8	1.5	69.8	15.1	180.7	357.3	0.8	0.1	1.9



Comments :
02024) These plants are low or deficient in boron. This may be the result of low soil boron or droughty conditions. Boron may be applied foliarly at 0.2 to 0.5 lbs per acre.

Report Number
16-215-3052

Lab No:
205024

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

HELENA

PLANT ANALYSIS

Customer Account Number : **18807**

Send To : Helena Chemical (Sharon)
Ken
4874 Hwy 45 E
Sharon TN 38255

Grower :
Philip Wallace Farm

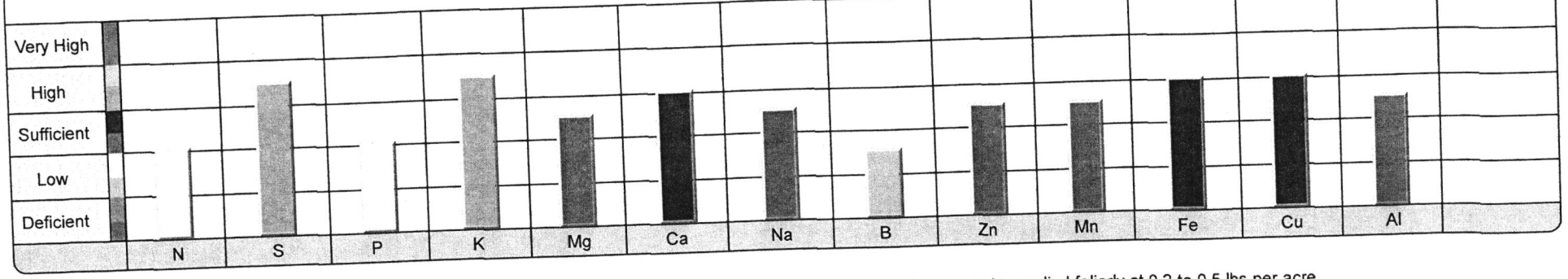
Report Date : 8/3/2016

Field id:
Sample Id : **3B** 2nd

Crop : **Bermudagrass, Hybrid**
Growth Stage : **4 to 5 week old plants**

	Nitrogen %	Sulfur %	Phosphorus %	Potassium %	Magnesium %	Calcium %	Sodium %	Boron ppm	Zinc ppm	Manganese ppm	Iron ppm	Copper ppm	Aluminum ppm
Analysis	2.00	0.31	0.18	2.54	0.16	0.42	0.06	4	26	85	150	18	117
Normal Range	2.00	0.15	0.20	1.50	0.14	0.25	0.00	5	15	25	50	5	0
	2.60	0.25	0.40	4.39	0.25	0.50	0.20	16	71	301	201	20	300

	N/S	N/K	P/S	P/Zn	K/Mg	K/Mn	Ca/B	Fe/Mn	Ca/K	Ca/Mg
Actual Ratio	6.5	0.8	0.6	69.2	15.9	298.8	1,050.0	1.8	0.2	2.6
Expected Ratio	11.5	0.8	1.5	69.8	15.1	180.7	357.3	0.8	0.1	1.9



Comments :

02024) These plants are low or deficient in boron. This may be the result of low soil boron or droughty conditions. Boron may be applied foliarly at 0.2 to 0.5 lbs per acre.

02015) These plants are low or deficient in nitrogen. This condition could be due to inadequate nitrogen fertilization, poor drainage, excessive rainfall or leaching.

02084) Additional nitrogen may be supplied to the crop with sidedress or topdress applications or in irrigation water. Apply at the rate of 20 to 50 lbs per acre. Repeated applications may be necessary.

02017) These plants are low or deficient in phosphorus. Possible causes inclued low soil phosphorus level, high soil pH, low soil pH, poor drainage, root damage or cool soil temperature. In season surface application of phosphorus on row crops is, generally, not recommended because phosphorus moves very little in the soil. However, for severe deficiencies, sidedress and incorporate 30 to 40 lbs of P2O5 per acre as early in the season as possible.

Report Number
16-215-3052

Lab No:
205025

Waypoint ANALYTICAL

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HELENA

PLANT ANALYSIS

Customer Account Number : **18807**

Send To : Helena Chemical (Sharon)
Ken
4874 Hwy 45 E
Sharon TN 38255

Grower :
Philip Wallace Farm

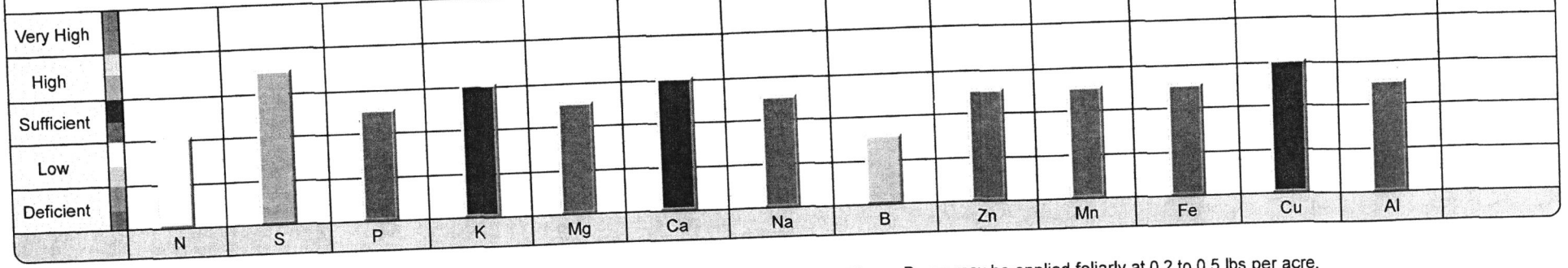
Report Date : 8/3/2016

Crop : **Bermudagrass, Hybrid**
Growth Stage : **4 to 5 week old plants**

Field id:
Sample Id : **3C** 2nd

	Nitrogen %	Sulfur %	Phosphorus %	Potassium %	Magnesium %	Calcium %	Sodium %	Boron ppm	Zinc ppm	Manganese ppm	Iron ppm	Copper ppm	Aluminum ppm
Analysis	1.63	0.36	0.23	2.33	0.15	0.44	0.04	4	26	74	123	19	97
Normal Range	2.00	0.15	0.20	1.50	0.14	0.25	0.00	5	15	25	50	5	0
	2.60	0.25	0.40	4.39	0.25	0.50	0.20	16	71	301	201	20	300

	N/S	N/K	P/S	P/Zn	K/Mg	K/Mn	Ca/B	Fe/Mn	Ca/K	Ca/Mg
Actual Ratio	4.5	0.7	0.6	88.5	15.5	314.9	1,100.0	1.7	0.2	2.9
Expected Ratio	11.5	0.8	1.5	69.8	15.1	180.7	357.3	0.8	0.1	1.9



Comments :

02024) These plants are low or deficient in boron. This may be the result of low soil boron or droughty conditions. Boron may be applied foliarly at 0.2 to 0.5 lbs per acre.

02015) These plants are low or deficient in nitrogen. This condition could be due to inadequate nitrogen fertilization, poor drainage, excessive rainfall or leaching.

02084) Additional nitrogen may be supplied to the crop with sidedress or topdress applications or in irrigation water. Apply at the rate of 20 to 50 lbs per acre. Repeated applications may be necessary.

Report Number
16-253-0025

Lab No:
211647

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

HELENA

PLANT ANALYSIS

Customer Account Number : **18807**

Send To : Helena Chemical (Sharon)
Ken
4874 Hwy 45 E
Sharon TN 38255

Grower :
Philip Wallace

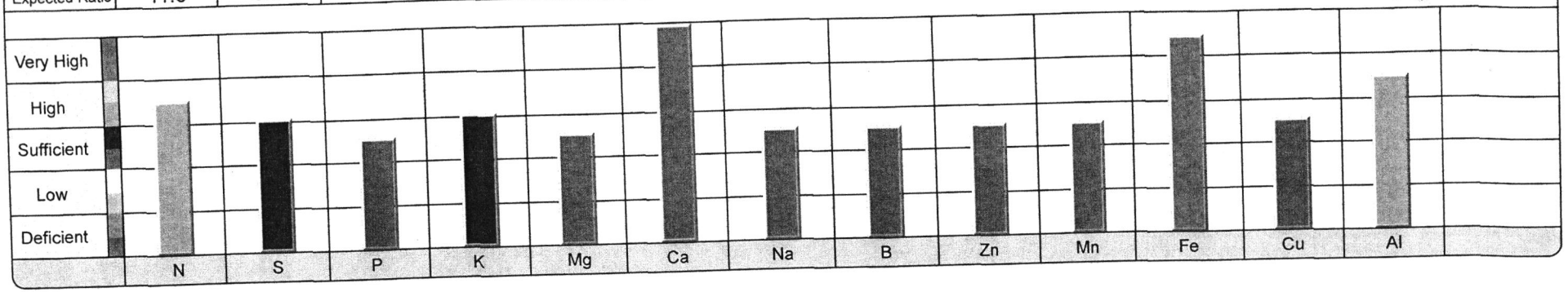
Report Date : 9/10/2016

Field id:
Sample Id : **1A** 3rd cutting

Crop : **Bermudagrass, Hybrid**
Growth Stage : **4 to 5 week old plants**

	Nitrogen %	Sulfur %	Phosphorus %	Potassium %	Magnesium %	Calcium %	Sodium %	Boron ppm	Zinc ppm	Manganese ppm	Iron ppm	Copper ppm	Aluminum ppm
Analysis	2.72	0.24	0.22	2.16	0.19	0.84	0.04	8	38	99	312	9	349
Normal Range	2.00	0.15	0.20	1.50	0.14	0.25	0.00	5	15	25	50	5	0
	2.60	0.25	0.40	4.39	0.25	0.50	0.20	16	71	301	201	20	300

	N/S	N/K	P/S	P/Zn	K/Mg	K/Mn	Ca/B	Fe/Mn	Ca/K	Ca/Mg
Actual Ratio	11.3	1.3	0.9	57.9	11.4	218.2	1,050.0	3.2	0.4	4.4
Expected Ratio	11.5	0.8	1.5	69.8	15.1	180.7	357.3	0.8	0.1	1.9



Comments :
02114) One or more nutrients are very high at this time. Please monitor.

Report Number
16-253-0025

Lab No:
211648

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

HELENA

PLANT ANALYSIS

Customer Account Number : **18807**

Send To : Helena Chemical (Sharon)
Ken
4874 Hwy 45 E
Sharon TN 38255

Grower :
Philip Wallace

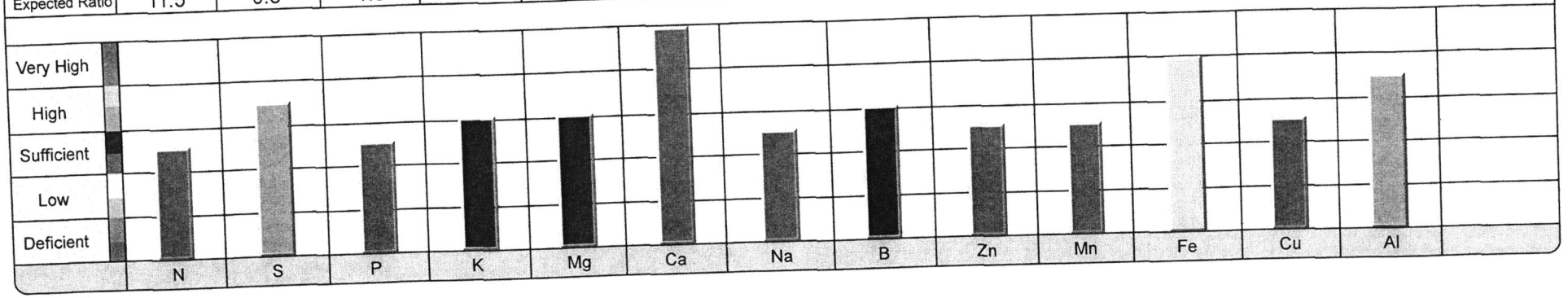
Report Date : 9/10/2016

Field id: 3rd cutting
Sample Id : **2A**

Crop : **Bermudagrass, Hybrid**
Growth Stage : **4 to 5 week old plants**

	Nitrogen %	Sulfur %	Phosphorus %	Potassium %	Magnesium %	Calcium %	Sodium %	Boron ppm	Zinc ppm	Manganese ppm	Iron ppm	Copper ppm	Aluminum ppm
Analysis	2.27	0.27	0.27	2.17	0.21	0.93	0.10	15	39	132	264	11	323
Normal Range	2.00	0.15	0.20	1.50	0.14	0.25	0.00	5	15	25	50	5	0
	2.60	0.25	0.40	4.39	0.25	0.50	0.20	16	71	301	201	20	300

	N/S	N/K	P/S	P/Zn	K/Mg	K/Mn	Ca/B	Fe/Mn	Ca/K	Ca/Mg
Actual Ratio	8.4	1.0	1.0	69.2	10.3	164.4	620.0	2.0	0.4	4.4
Expected Ratio	11.5	0.8	1.5	69.8	15.1	180.7	357.3	0.8	0.1	1.9



Comments :
02114) One or more nutrients are very high at this time. Please monitor.

Report Number
16-260-0004

Lab No:
212107

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

HELENA

PLANT ANALYSIS

Customer Account Number : **18807**

Send To : Helena Chemical (Sharon)
Ken
4874 Hwy 45 E
Sharon TN 38255

Grower :
Philip Wallace

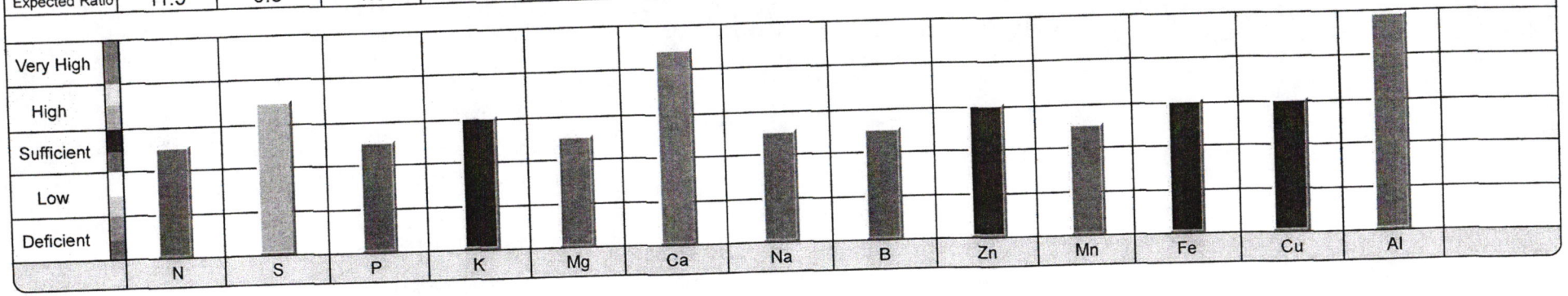
Report Date : 9/17/2016

Field id:
Sample Id : **3B** 3rd cutting

Crop : **Bermudagrass, Hybrid**
Growth Stage : **4 to 5 week old plants**

	Nitrogen %	Sulfur %	Phosphorus %	Potassium %	Magnesium %	Calcium %	Sodium %	Boron ppm	Zinc ppm	Manganese ppm	Iron ppm	Copper ppm	Aluminum ppm
Analysis	2.03	0.28	0.27	2.11	0.19	0.77	0.06	6	45	86	172	18	901
Normal Range	2.00	0.15	0.20	1.50	0.14	0.25	0.00	5	15	25	50	5	0
	2.60	0.25	0.40	4.39	0.25	0.50	0.20	16	71	301	201	20	300

	N/S	N/K	P/S	P/Zn	K/Mg	K/Mn	Ca/B	Fe/Mn	Ca/K	Ca/Mg
Actual Ratio	7.3	1.0	1.0	60.0	11.1	245.3	1,283.3	2.0	0.4	4.1
Expected Ratio	11.5	0.8	1.5	69.8	15.1	180.7	357.3	0.8	0.1	1.9



Comments :
02114) One or more nutrients are very high at this time. Please monitor.

Report Number
16-260-0004

Lab No:
212108

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

HELENA

PLANT ANALYSIS

Customer Account Number : **18807**

Send To : Helena Chemical (Sharon)
Ken
4874 Hwy 45 E
Sharon TN 38255

Grower :
Philip Wallace

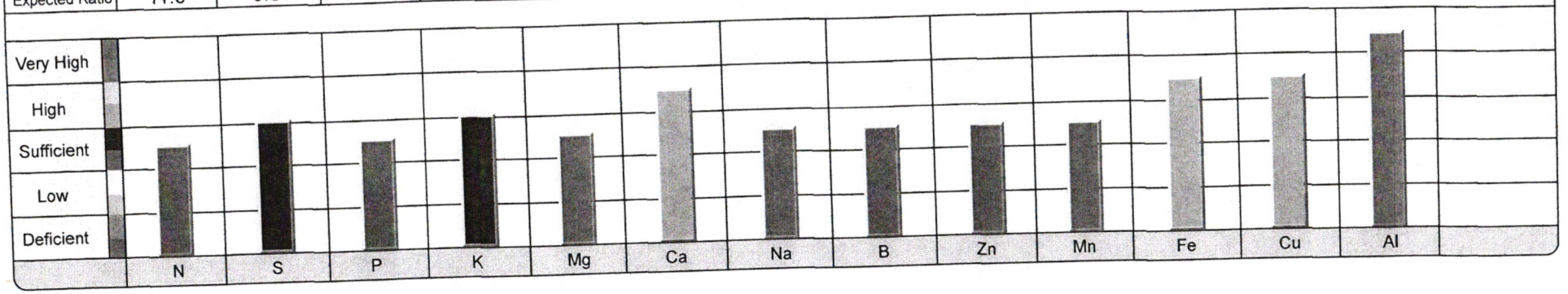
Report Date : 9/17/2016

Field id:
Sample Id : **3C** 3rd cutting

Crop : **Bermudagrass, Hybrid**
Growth Stage : **4 to 5 week old plants**

	Nitrogen %	Sulfur %	Phosphorus %	Potassium %	Magnesium %	Calcium %	Sodium %	Boron ppm	Zinc ppm	Manganese ppm	Iron ppm	Copper ppm	Aluminum ppm
Analysis	2.06	0.23	0.27	2.20	0.17	0.57	0.04	6	41	113	203	22	600
Normal Range	2.00 2.60	0.15 0.25	0.20 0.40	1.50 4.39	0.14 0.25	0.25 0.50	0.00 0.20	5 16	15 71	25 301	50 201	5 20	0 300

	N/S	N/K	P/S	P/Zn	K/Mg	K/Mn	Ca/B	Fe/Mn	Ca/K	Ca/Mg
Actual Ratio	9.0	0.9	1.2	65.9	12.9	194.7	950.0	1.8	0.3	3.4
Expected Ratio	11.5	0.8	1.5	69.8	15.1	180.7	357.3	0.8	0.1	1.9



Comments :
02002) Nutrient levels are adequate at this time.

(Sharon (TN)) Helena Chemical Co.

4874 US Highway 45 East
Sharon, TN 38255 / 731-456-2411

Consolidated Blend 4882748

Not Loaded

Salesperson: 1480
Ordered Date: 02/23/2016
Time: 9:49 AM
Loaded Date:
Crop: Hay
Acre: 25.7
Placement:
Applicator:
Vehicle ID:

PHILLIP WALLACE
- -

Bill To: PO BOX 201
SHARON, TN 38255

Field ID: 901646 / 1
Description:
Ship To: 935 MT VERNON RD
SHARON, TN 38255

Comments: VR Lime
Comments:

Product	EPA Registration #	Rate/Acre	Total
Lime Dolomite (Bulk Ton)		1.542 LBS	39.630 TON

Lbs	N	P	K	S	UD	Ca	Mg	Zn	Fe	Mn	Cu	B
Order.	0	0	0									
Blend.	0	0	0									
Analys.	0	0	0									

Lbs/Acre: 3084 **Lbs/Cu Ft: 673.22** **Cu Ft/Acre: 4.581** **Lbs/Batch: 15852** **Acre/Batch: 5.140**

Total Product Blended = 79260 lbs

5 Total Batches

This ticket is shared with:

	Regular	S-2	S-3
PHILLIP WALLACE	100.0000	100.0000	100.0000

Received by:_____ Date:_____

PURCHASER ACKNOWLEDGES AND AGREES TO THE TERMS AND CONDITIONS OF SALE NOTED ON THE REVERSE SIDE HEREOF.

(Sharon (TN)) Helena Chemical Co.

4874 US Highway 45 East
Sharon, TN 38255 / 731-456-2411

Consolidated Blend 4883189

Not Loaded

Salesperson: 1480
Ordered Date: 04/25/2016
Time: 6:57 AM
Loaded Date:
Crop: Hay
Acre: 27
Placement:
Applicator: BRYROB
Vehicle ID: CADS

PHILLIP WALLACE
- -

Bill To: PO BOX 201
SHARON, TN 38255

Field ID: 901646 / 1
Description:
Ship To: 935 MT VERNON RD
SHARON, TN 38255

Comments:
Comments:

Product	EPA Registration #	Rate/Acre	Total
Urea 46-0-0 Granular (Bulk Ton)		185.000 LBS	2.500 TON
N-Fixx (250 Gal)(Gal)		8.880 OZF	1.875 GAL
Hydra Hume DG (AG)(Coated)(2000 Lb Bag)(Lb)		20.000 LBS	540.000 LBS

Lbs	N	P	K	S	UD	Ca	Mg	Zn	Fe	Mn	Cu	B
Order.	0	0	0									
Blend.	85	0	0		20.00							
Analys.	41	0	0		9.72							

Lbs/Acre: 206 **Lbs/Cu Ft: 50.86** **Cu Ft/Acre: 4.043** **Lbs/Batch: 5551** **Acre/Batch: 27.000**

Total Product Blended = 5557 lbs

1 Total Batches

This ticket is shared with:

	Regular	S-2	S-3
PHILLIP WALLACE	100.0000	100.0000	100.0000

Received by: _____ Date: 4-25-16

PURCHASER ACKNOWLEDGES AND AGREES TO THE TERMS AND CONDITIONS OF SALE NOTED ON THE REVERSE SIDE HEREOF.

I#4918183

(Sharon (TN)) Helena Chemical Co.

4874 US Highway 45 East
Sharon, TN 38255 / 731-456-2411

Consolidated Blend 4883468

Not Loaded

Salesperson: 1480
Ordered Date: 06/14/2016
Time: 11:23 AM
Loaded Date:
Crop: Hay
Acre: 27
Placement:
Applicator: MP
Vehicle ID: CA Rig 4

PHILLIP WALLACE
- -

Bill To: PO BOX 201
SHARON, TN 38255

Field ID: 901646 / 1
Description:
Ship To: 935 MT VERNON RD
SHARON, TN 38255

Comments:
Comments:

Product	EPA Registration #	Rate/Acre	Total
Urea 46-0-0 Granular (Bulk Ton)		185.000 LBS	2.500 TON
N-Fixx (250 Gal)(Gal)		8.880 OZF	1.875 GAL
Hydra Hume DG (AG)(Coated)(2000 Lb Bag)(Lb)		20.000 LBS	540.000 LBS

Lbs	N	P	K	S	UD	Ca	Mg	Zn	Fe	Mn	Cu	B
Order.	0	0	0									
Blend.	85	0	0		20.00							
Analys.	41	0	0		9.72							

Lbs/Acre: 206 **Lbs/Cu Ft: 50.86** **Cu Ft/Acre: 4.043** **Lbs/Batch: 5551** **Acre/Batch: 27.000**

1 Total Batches

Total Product Blended = 5557 lbs

Tons 2.77
Fert 2.50
CARY 27 @ 6.00
$ 1679.24

This ticket is shared with:

	Regular	S-2	S-3
PHILLIP WALLACE	100.0000	100.0000	100.0000

Received by: _____ Date: 6-14-16

PURCHASER ACKNOWLEDGES AND AGREES TO THE TERMS AND CONDITIONS OF SALE NOTED ON THE REVERSE SIDE HEREOF

Wastewater Application Records

TN 0081591

Year 2016

1000 = 11.9 2.93 5.51

Date	Initials	Field	Amount	Gals.	N	P2O5	K2O	Hydro Home
2-11-16	PW	Applied	40 tons of	Lime	on	25 acres		
4-25-16	PW	Applied	Dry	Fert. liz	5000			540
5-7-16	PW	2A	.4	71,685	853.05	210.04	394.98	
5-15-16	PW	3BE	.35	31,363	373.22	91.99	172.81	
5-15-16	PW	3BW	.3	16,292	193.87	47.73	89.77	
5-15-16	PW	3C	.3	21,832	259.80	63.97	120.29	
5-22-16	PW	3C	.3	38694	460.46	113.37	213.20	
5-23-16	PW	3C	.3	67,715	805.81	198.40	373.11	
6-7-16	Cut Hay in	1b, 2A, 3C						
6-8-16	Cut Hay in	3C, 3BE, 3BW						
6-11-16	Baled	Hay from [redacted]		2A, 3C	625	Bales	Small Sq. 60lb	27.75 tons
6-12-16	Baled	Hay from		3BE,	3C 300	Bales	Small Sq 60lb	
6-12-16	Baled	Hay from		3C, 3BW	33	Bales	Large Round	-24.75 tons
6-14-16	PW	All	Dry Fertilizer		5000			540
6-14-16	PW	Sprayed Pastora on		all fields				
6-18-16	PW	2A	.5	89608	1066	262.55	493.74	
6-20-16	PW	3C, 3BE	.5	81,462	969.39	238.68	448.85	
6-21-16	PW	3BW	.5	47,519	565.48	139.23	261.83	
6-22-16	PW	3C	.6	97764	1163.39	286.45	538.68	
6-23-16	PW	3C	.6	97764	1163.39	286.45	538.68	
6-24-16	PW	2A	.5	29869	355.44	87.52	164.58	
6-25-16	PW	2A, 3C	.5	86,893	1034.03	254.60	478.18	
6-28-16	PW	3BW	.5	47,520	565.48	139.23	261.83	
6-29-16	PW	3C	.5	36,658	436.23	107.40	201.98	
6-30-16	PW	3C	.5	73,316	872.46	214.82	403.97	
6-31-16	PW	3C	.5	73,316	872.46	214.82	403.97	
7-1-16	[illegible]	3BE, 3C	.5	54,308	646.27	159.12	299.24	
7,30-16	PW	Cut Hay in		3B, 1A, 2A, 3C	= 800	Small Sq. x 60lb		24 Tons
7,31-16	PW	Cut Hay in		3B, 3C	= 27	Big Round x1500lb		21.75 tons
8-8-16	PW	3BE	.4	35843	426	105.02	197.49	
8-9-16	PW	2A	.5	89608	1066.33	262.55	493.74	
3.4 8-9-16	PW	3C [redacted]	.5	40,731				
6.4 8-10-16	PW	3C, 3BW	.5	81,462				
5.4 8-11-16	PW	3C	.4	56,480				
9-5-16	PW	1A, 2A		Cut hay		362 -	Sm. Sq.	x 60lb
9-12-16	PW	3C, 3B		Cut hay		53	Lg. Rd	x1500lb
1.4 9-15-16	PW	2A	.4	47,791	568.71	140.03	263.33	
2.2 9-19-16	PW	2A	.4	23,895	284.35	70.01	131.66	
4.4 9-20-16	PW	2A	.4	47,791	568.71	140.03	263.33	
2.2 9-21-16	PW	2A	.4	23,895	284.35	70.01	131.66	
1.5 9-22-16	PW	3BW	.4	38015	452.38	111.39	209.47	
9-23-16	PW	3C	.4	64083	762.59	187.76	353.10	
9-24-16	PW	3C	.4	64083	762.59	187.76	353.10	
5 9-25-16	PW	3BE [redacted]	0.4	38015	452.38	111.39	209.47	

10.86 tons
39.75 tons
148.86 +

6 tons/acre

Wastewater Application Records

TN 0081591

Year 2016

	Date	Initials	Field	Amount	Gals.	N (11.9)	P2O5 (2.93)	K2O (5.51)	
3.5	9-27-16	PW	3BW	.4	38015	452.38	111.39	209.47	
2.6	9.29-16	PW	3C	.4	28240	336.06	82.74	155.60	
5	9.30.16	PW	3C	.4	54308	646.27	159.12	299.24	
1.3	10.3.16	PW	3C	.4	14120	168.03	41.37	77.80	
3.3	10.5.16	PW	3BE	.4	35843	426.53	105.02	197.49	
1	10-7.16	PW	3C	.4	10861	129.25	31.82	59.85	
2.0	10.16.16	PW	3C	.4	21723	258.50	63.64	119.69	
2.0	10.18.16	PW	3C	.4	21723	258.50	63.64	119.69	

CAFO RAINFALL RECORD

NAME OF FACILITY	LATITUDE	LONGITUDE	YEAR
Philip Wallace Farm	036°13'22.26	088°50'27.38W	2016

SITE LOCATION	COUNTY	PERMIT TRACKING #
800 Rainey Rd. Sharon, TN 38255	Weakley	TN0081591

DAY	JAN	INITIAL	FEB	INITIAL	MAR	INITIAL	APR	INITIAL	MAY	INITIAL	JUN	INITIAL
1			.20	PW	.10	PW			.7	PW		
2			.65	PW					.2	PW	Trace	PW
3			.70	PW	.20	PW					.50	PW
4					.20	PW					.90	PW
5					.10	PW						
6												
7							.20	PW				
8	.40	PW					.10	PW				
9	.70	PW	.05	PW	2.0	PW			.10	PW		
10	.10	PW			3.1	PW			.50	PW		
11					.1		1.5	PW				
12									.30	PW		
13					3.1	PW						
14					.7	PW	.10	PW				
15			.3	PW							1.1	PW
16			.2	PW								
17									.35	PW		
18												
19					.05	PW			.90	PW		
20												
21			Trace	PW			1.5	PW				
22	1.20	PW										
23												
24			1.7	PW	.10	PW						
25			.10	PW					1.25	PW		
26									2.1	PW		
27					.30	PW			.8	PW		
28									.25	PW	.05	PW
29							1.2	PW				
30					2.8	PW			Trace	PW		
31												
TOTAL												

Irrigation
Dec 2016
Spot

INSTRUCTIONS:

1. Try to record precipitation each day at the same time.
2. Record precipitation to the nearest 1/100 of an inch (i.e., 0.01, 0.31 & 1.31).
3. If precipitation is less than 0.01 inch, record T for trace.

CAFO RAINFALL RECORD

NAME OF FACILITY	LATITUDE	LONGITUDE	YEAR
Philip Wallace Farm	036° 13' 22.26	088° 50' 27.38 W	2016

SITE LOCATION	COUNTY	PERMIT TRACKING #
800 Rainey Rd. Sharon, TN 38255	Weakley	TN 0081591

DAY	JULY	INITIAL	AUG	INITIAL	SEPT	INITIAL	OCT	INITIAL	NOV	INITIAL	DEC	INITIAL
1					Vacation							
2	.10	PW										
3												
4	.10	PW	1.1	PW								
5			~~.45~~	PW							.30	PW
6			.10	PW							1.60	PW
7												
8	.15	PW							.10	PW		
9									Trace	PW		
10					Trace	PW						
11					.50	PW					.40	PW
12	.10	PW									.20	PW
13							.05	PW				
14	.10	PW					.30	PW				
15			.55	PW			.05	PW				
16			1.05	PW					Trace	PW		
17			.60	PW	1.25	PW						
18			.25	PW							3.1	PW
19	.35	PW					.10	PW	.80	PW		
20	.05	PW					.10	PW				
21												
22	.40	PW										
23									.30	PW	.20	PW
24			Vacation						.10	PW	.10	PW
25	.38	PW										
26					.20	PW						
27											2.00	PW
28	.90	PW							1.5	PW	.40	PW
29									.10	PW		
30											.40	PW
31												
TOTAL												

YEARLY TOTAL:

INSTRUCTIONS:

1. Try to record precipitation each day at the same time.
2. Record precipitation to the nearest 1/100 of an inch (i.e., 0.01, 0.31 & 1.31).
3. If precipitation is less than *0.01* inch, record T for trace.

CAFO Weekly Storage and Containment Structure Inspections
Log Sheet

Facility Name: Philip Wallace Farm NPDES Permit No.: TN0081591

Storage or Containment Structure: Lagoon

Instructions: Use this form to keep track of weekly visual inspections of the structures that you use to store or contain manure, litter, and process wastewater. Use a separate form for each structure.

Keep track of your inspections each week in the table below. Provide the following information:

- $ the date of the inspection
- $ the initials of the inspector
- $ for open liquid waste storage structures, record the level indicated on the depth marker
- $ use the "Notes" column to describe problems, if you find any, and how they might be fixed
- $ fill in the "date corrected" column with the date when you correct the problem

	Date	Initials	Depth Marker Reading	Notes (Note any problems found and possible solutions.)	Date Corrected
Week 1	1/3	PW	5' 4½"		
Week 2	1/10	PW.	5' 8"	The barn was washed & cleaned out	
Week 3	1/17	PW.	5' 8"		
Week 4	1/24	PW	5' 9"		
Week 5	1/31	PW	5' 9"		
Week 6	2/7	PW	5' 10"		
Week 7	2/14	PW	5' 10½"		

Example CAFO Weekly Storage and Containment Structure Inspections Log Sheet

NPDES Permit No.: TN0081591

	Date	Initials	Depth Marker Reading	*Notes* (Note any problems found and possible solutions.)	Date Corrected
Week 8	2/21	PW	5' 11½"		
Week 9	2/28	PW	6' ½"		
Week 10	3/6	PW	6' 1"		
Week 11	3/14	PW	6' 10"		
Week 12	3/21	PW	6' 9"		
Week 13	3/28	PW	6' 9½"		
Week 14	4/4	PW	7'		
Week 15	4/11	PW	6' 11"		
Week 16	4/18	PW	6' 10½"		
Week 17	4/25	PW	7'		
Week 18	5/2	PW	7' 1"		

Example CAFO Weekly Storage and Containment Structure Inspections Log Sheet

NPDES Permit No.: TN 0081591

	Date	Initials	Depth Marker Reading	Notes (Note any problems found and possible solutions.)	Date Corrected
Week 19	5/9	PW	6'10"		
Week 20	5/16	PW	6'8½"		
Week 21	5/23	PW	6'5¼"		
Week 22	5/30	PW	6'9½"		
Week 23	6/6	PW	6'11"		
Week 24	6/13	PW	6'11"	Tosh Farms washed the barn out this week	
Week 25	6/20	PW	6'5"		
Week 26	6/27	PW	5'8½"		
Week 27	7/4	PW	5'		
Week 28	7/11	PW	4'11"		
Week 29	7/18	PW	4'10"		

Example CAFO Weekly Storage and Containment Structure Inspections Log Sheet

NPDES Permit No.: TX0081591

	Date	Initials	Depth Marker Reading	Notes (Note any problems found and possible solutions.)	Date Corrected
Week 30	7/25	4'10"	PW		
Week 31	8/1	4'9"	PW		
Week 32	8/8	4'10"	PW		
Week 33	8/15	4'2½"	PW		
Week 34	8/22		PW	Vacation	
Week 35	8/29		PW	Vacation	
Week 36	9/5	4'3"	PW		
Week 37	9/12	4'4"	PW		
Week 38	9/19	4'3"	PW		
Week 39	9/26	3'4"	PW		
Week 40	10/3	2'10½"	PW		

Example CAFO Weekly Storage and Containment Structure Inspections Log Sheet

NPDES Permit No.: IN 0081591

	Date	Initials	Depth Marker Reading	Notes (Note any problems found and possible solutions.)	Date Corrected
Week 41	10/10	PW	2'8"		
Week 42	10/17	PW	2'9"		
Week 43	10/24	PW	2'6"		
Week 44	10/31	PW	2'6"		
Week 45	11/7	PW	2'6½"		
Week 46	11/14	PW	2'6½"		
Week 47	11/21	PW	2'7"		
Week 48	11/28	PW	2'9"		
Week 49	12/5	PW	2'10½"		
Week 50	12/12	PW	2'11½"		
Week 51	12/19	PW	3'6"	Washed the barn out this week	

Example CAFO Weekly Storage and Containment Structure Inspections Log Sheet

NPDES Permit No.: TN 0081591

	Date	Initials	Depth Marker Reading	Notes (Note any problems found and possible solutions.)	Date Corrected
Week 52	12/29	PW	4' 1½"	Washed out barn	