

DAIRY FACILITY INFORMATION

A. NAME OF DAIRY OR BUSINESS OPERATING THE DAIRY:

McMoo Dairy

Physical address of dairy:

11663 Buena Vista Rd

Number and Street

Bakersfield

City

Kern

County

93311

Zip Code

Street and nearest cross street (if no address):

Date facility was originally placed in operation: 01-01-2000

Regional Water Quality Control Board Basin Plan designation:

Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

0184-0070-0007-0000 0184-0070-0009-0000 0184-0070-0010-0000

B. OPERATORS

Brodie McClain

Operator Name: Brodie McClain

Telephone no.: (661) 587-1154

Landline

Cellular

17318 Legend Oaks Lane

Mailing Address Number and Street

Bakersfield

City

Kern

93314

County

Zip Code

C. OWNERS

Brodie McClain

Owner Name: Brodie McClain

Telephone no.: (661) 587-1154

Landline

Cellular

17318 Legend Oaks Lane

Mailing Address Number and Street

Bakersfield

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AVAILABLE NUTRIENTS

A. HERD INFORMATION

	Milk Cows	Dry Cows	Bred Heifers (15-24 mo.)	Heifers (7-14 mo.to breeding)	Calves (4-6 mo.)	Calves (0-3 mo.)
Number open confinement	0	461	989	470	378	0
Number under roof	2,982	0	0	0	0	0
Maximum number	2,984	468	996	475	385	200
Average number	2,982	461	989	470	378	0
Average live weight (lbs)	1400	1450	1000	750		

Predominant milk cow breed: Holsteins
 Average Milk Production: 70 pounds per cow per day

B. MANURE GENERATED

Total manure excreted by the herd:	<u>99,404.69 tons per reporting period</u>		
Total nitrogen from manure:	<u>1,242,010.86 lbs per reporting period</u>	After ammonia losses (30% loss applied):	<u>869,407.60 lbs per reporting period</u>
Total phosphorus from manure:	<u>205,214.43 lbs per reporting period</u>		
Total potassium from manure:	<u>571,080.51 lbs per reporting period</u>		
Total salt from manure:	<u>1,510,081.65 lbs per reporting period</u>		

C. PROCESS WASTEWATER GENERATED

Process wastewater generated:	<u>42,474,516.01 gallons</u>
Total nitrogen generated:	<u>149,706.97 lbs</u>
Total phosphorus generated:	<u>141,360,743.80 lbs</u>
Total potassium generated:	<u>317,045.15 lbs</u>
Total salt generated:	<u>1,771,075.09 lbs</u>

$$\begin{aligned}
 & 42,474,516.01 \text{ gallons applied} \\
 & + 0 \text{ gallons exported} \\
 & - 0 \text{ gallons imported} \\
 & = 42,474,516.01 \text{ gallons generated}
 \end{aligned}$$

D. FRESH WATER SOURCES

Source Description	Type
Main Dairy Well	Ground Water
Well 2	Ground Water
Well 4	Ground Water
Well 5	Ground Water
Well 6	Ground Water

E. SUBSURFACE (TILE) DRAINAGE SOURCES

No fresh water sources entered.

F. NUTRIENT IMPORTS

No dry manure nutrient imports entered.

No process wastewater nutrient imports entered.

No commercial or other nutrient imports entered.

G. NUTRIENT EXPORTS

Date	Material type	Quantity	Reporting basis	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	TFS (%)
04/25/2023	Separator solids	3,167 tons	as-is	69.5	18,230.00	5,010.00	8,730.00	54.00
06/01/2023	Separator solids	4,218 tons	as-is	68.2	18,230.00	5,010.00	8,730.00	54.00
06/12/2023	Separator solids	3,164 tons	as-is	68.3	19,410.00	4,060.00	16,160.00	43.00
08/25/2023	Separator solids	3,497 tons	as-is	69.6	19,410.00	4,060.00	16,160.00	43.00
10/04/2023	Separator solids	3,375 tons	as-is	69.5	26,800.00	5,920.00	24,530.00	20.00

No process wastewater nutrient exports entered.

Material type	N (lbs)	P (lbs)	K (lbs)	TDS (%)
Dry Manure	708,737.12	168,045.02	509,803.12	15,054,260.00
Process wastewater	0.00	0.00	0.00	0.00
Total exports for all materials	708,737.12	168,045.02	509,803.12	15,054,260.00

APPLICATION AREA

A. LIST OF LAND APPLICATION AREAS

Field name	Controlled acres	Cropable acres	Total harvests	Type of waste applied	Parcel number
M1	55.00	54.00	2	BOTH	0184-0070-0007-0000
M2	41.41	34.00	2	BOTH	0184-0070-0007-0000
M3	35.09	31.00	2	BOTH	0184-0070-0007-0000
M4	39.23	34.00	2	BOTH	0184-0070-0007-0000
M5	39.23	39.00	2	BOTH	0184-0070-0007-0000
M6	79.00	65.00	2	BOTH	0184-0070-0010-0000
M7	78.47	78.00	2	BOTH	0184-0070-0009-0000
M8	79.00	73.00	2	BOTH	0184-0070-0009-0000
M9	75.00	73.00	2	BOTH	0184-0070-0009-0000
Totals for areas that were used for application	521.43	481.00	18.00		
Totals for areas that were not used for application	40.43	40.43			
Land application area totals	521.43	521.43	18.00		

B. CROPS AND HARVESTS

M1

Field Name: M1

10/20/2022: Triticale

Crop: Triticale Acres planted: 54 Plant date: 10/20/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
04/05/2023	1,316.52 ton	As-is		0.00	6,944.40	1,926.00	11,131.20	72.00	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	26.00	358.80	44.20	195.00	520.00
Total actual harvest content	24.38	338.61	93.91	542.76	0.00

04/10/2023: Corn, Late Silage

Crop: Corn, Late Silage Acres planted: 54 Plant date: 04/10/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/01/2023	1,316.52 ton	As-is		0.00	5,700.00	957.60	7,881.20	19.00	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	23.00	736.00	174.80	920.00	460.00
Total actual harvest content	24.38	277.93	46.69	384.29	0.00

M2Field Name: M2**10/20/2022: Triticale**Crop: Triticale Acres planted: 34 Plant date: 10/20/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
04/05/2023	648.38 ton	As-is		0.00	7,704.00	1,908.00	10,713.60	72.00	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	26.00	358.80	44.20	195.00	520.00
Total actual harvest content	19.07	293.83	72.77	408.62	0.00

04/12/2023: Corn, Late SilageCrop: Corn, Late Silage Acres planted: 34 Plant date: 04/12/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/03/2023	715.36 ton	As-is		0.00	5,244.00	931.00	8,595.60	22.80	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	23.00	736.00	174.80	920.00	460.00
Total actual harvest content	21.04	220.67	39.18	361.70	0.00

Field Name: M3

10/20/2022: Triticale

Crop: Triticale Acres planted: 31 Plant date: 10/20/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
04/01/2023	632.71 ton	As-is		0.00	7,750.80	2,109.60	12,117.60	79.20	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	26.00	358.80	44.20	195.00	520.00
Total actual harvest content	20.41	316.39	86.11	494.64	0.00

04/14/2023: Corn, Late Silage

Crop: Corn, Late Silage Acres planted: 31 Plant date: 04/14/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/05/2023	628.06 ton	As-is		0.00	5,738.00	824.60	7,288.40	22.80	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	23.00	736.00	174.80	920.00	460.00
Total actual harvest content	20.26	232.50	33.41	295.33	0.00

Field Name: M4

10/20/2022: Triticale

Crop: Triticale Acres planted: 34 Plant date: 10/20/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
04/01/2023	688.84 ton	As-is		0.00	6,912.00	1,980.00	11,358.00	72.00	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	26.00	358.80	44.20	195.00	520.00
Total actual harvest content	20.26	280.07	80.23	460.23	0.00

04/15/2023: Corn, Late Silage

Crop: Corn, Late Silage Acres planted: 34 Plant date: 04/15/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/06/2023	675.58 ton	As-is		0.00	5,320.00	1,007.00	7,079.40	22.80	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	23.00	736.00	174.80	920.00	460.00
Total actual harvest content	19.87	211.42	40.02	281.34	0.00

M5Field Name: M5**10/20/2022: Triticale**Crop: Triticale Acres planted: 39 Plant date: 10/20/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
04/26/2023	748.41 ton	As-is		0.00	7,041.60	1,875.60	10,843.20	72.00	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	26.00	358.80	44.20	195.00	520.00
Total actual harvest content	19.19	270.26	71.99	416.16	0.00

04/17/2023: Corn, Late SilageCrop: Corn, Late Silage Acres planted: 39 Plant date: 04/17/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/27/2023	876.72 ton	As-is		0.00	5,434.00	881.60	6,547.40	30.40	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	23.00	736.00	174.80	920.00	460.00
Total actual harvest content	22.48	244.31	39.64	294.37	0.00

M6Field Name: M6**10/27/2022: Triticale**Crop: Triticale Acres planted: 65 Plant date: 10/27/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/01/2023	1,138.80 ton	As-is		0.00	7,272.00	1,998.00	11,127.60	72.00	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	26.00	358.80	44.20	195.00	520.00
Total actual harvest content	17.52	254.81	70.01	389.91	0.00

04/19/2023: Corn, Late SilageCrop: Corn, Late Silage Acres planted: 65 Plant date: 04/19/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/02/2023	1,335.75 ton	As-is		0.00	5,586.00	965.20	8,382.80	22.80	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	23.00	736.00	174.80	920.00	460.00
Total actual harvest content	20.55	229.58	39.67	344.53	0.00

Field Name: M7

10/29/2022: Triticale

Crop: Triticale Acres planted: 78 Plant date: 10/29/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/04/2023	1,415.70 ton	As-is		0.00	9,223.20	1,836.00	12,214.80	100.80	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	26.00	358.80	44.20	195.00	520.00
Total actual harvest content	18.15	334.80	66.65	443.40	0.00

04/19/2023: Corn, Late Silage

Crop: Corn, Late Silage Acres planted: 78 Plant date: 04/19/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/31/2023	1,829.88 ton	As-is		0.00	5,396.00	969.00	7,512.60	15.20	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	23.00	736.00	174.80	920.00	460.00
Total actual harvest content	23.46	253.18	45.47	352.49	0.00

Field Name: M8

11/01/2022: Triticale

Crop: Triticale Acres planted: 73 Plant date: 11/01/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/03/2023	1,571.69 ton	As-is		0.00	9,223.20	1,836.00	12,214.80	100.80	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	26.00	358.80	44.20	195.00	520.00
Total actual harvest content	21.53	397.15	79.06	525.97	0.00

04/20/2023: Corn, Late Silage

Crop: Corn, Late Silage Acres planted: 73 Plant date: 04/20/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/11/2023	1,574.61 ton	As-is		0.00	4,712.00	862.60	6,824.80	98.80	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	23.00	736.00	174.80	920.00	460.00
Total actual harvest content	21.57	203.28	37.21	294.42	0.00

M9Field Name: M9**11/01/2022: Triticale**Crop: Triticale Acres planted: 73 Plant date: 11/01/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/02/2023	1,447.59 ton	As-is		0.00	6,912.00	1,980.00	11,358.00	72.00	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	26.00	358.80	44.20	195.00	520.00
Total actual harvest content	19.83	274.13	78.53	450.46	0.00

04/21/2023: Corn, Late SilageCrop: Corn, Late Silage Acres planted: 73 Plant date: 04/21/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/30/2023	1,861.50 ton	As-is		0.00	5,130.00	927.20	6,976.80	22.80	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	23.00	736.00	174.80	920.00	460.00
Total actual harvest content	25.50	261.63	47.29	355.82	0.00

NUTRIENT BUDGET

A. LAND APPLICATIONS

M1

Field name:

M1

Crop: Corn, Late Silage

Plant date: 04/10/2023

04/10/2023: Corn, Late Silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following
04/01/2023	Surface (Irrigation)	No precipitation	No precipitation		No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	756.00 Lbs
Corral Solids	Corral Solids	237.94	65.39	113.94	7,048.08	702.00 ton
Application event totals		251.94	65.39	113.94	7,048.08	

04/03/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	3.44	0.00	0.91	227.95	7,108,774.81 gal
Application event totals		3.44	0.00	0.91	227.95	

04/25/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	3.48	0.00	0.92	230.40	7,185,024.11 gal
Application event totals		3.48	0.00	0.92	230.40	

05/16/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	17.24	12,316.30	38.16	189.42	252,209.01 gal
Well Water	Ground water	3.55	0.00	0.94	235.01	7,328,724.66 gal
Application event totals		20.79	12,316.30	39.10	424.43	

05/31/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	21.56	15,395.38	47.71	236.78	315,261.26 gal
Well Water	Ground water	4.16	0.00	1.10	275.44	8,589,769.88 gal
Application event totals		25.72	15,395.38	48.81	512.22	

06/15/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	3.62	0.00	0.95	239.80	7,478,290.11 gal
Lagoon Water Effluent	Process wastewater	25.87	18,474.45	57.25	284.13	378,313.49 gal
Application event totals		29.49	18,474.45	58.20	523.93	
06/30/2023	Surface (Irrigation)		No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	4.34	0.00	1.15	287.76	8,973,948.14 gal
Lagoon Water Effluent	Process wastewater	22.46	16,039.83	49.70	246.69	328,458.25 gal
Application event totals		26.80	16,039.83	50.85	534.45	
07/15/2023	Surface (Irrigation)		No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	4.06	0.00	1.07	268.95	8,387,415.43 gal
Application event totals		4.06	0.00	1.07	268.95	

10/20/2022: Tricale

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
10/20/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Solids	Corral Solids	138.24	37.81	103.82	3,594.24	324.00 ton
Application event totals		138.24	37.81	103.82	3,594.24	
10/25/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	3.16	0.00	0.73	314.97	6,968,007.41 gal
Application event totals		3.16	0.00	0.73	314.97	
11/21/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	2.51	0.00	0.58	250.01	5,531,001.88 gal
Lagoon Water Effluent	Process wastewater	32.83	32,402.35	65.64	463.53	485,355.70 gal
Application event totals		35.34	32,402.35	66.22	713.54	
12/21/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount

Canal Water	Ground water	2.66	0.00	0.61	265.26	5,868,258.14 gal
Lagoon Water Effluent	Process wastewater	34.52	34,066.52	69.01	487.34	510,283.32 gal
Application event totals		37.18	34,066.52	69.62	752.60	

01/17/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	51.78	51,099.78	103.52	731.01	765,425.02 gal
Canal Water	Ground water	3.28	0.00	0.87	217.61	6,786,181.50 gal
Application event totals		55.06	51,099.78	104.39	948.62	

02/10/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	51.83	56,939.55	110.21	562.88	843,140.55 gal
Canal Water	Ground water	3.36	0.00	0.89	222.40	6,935,747.66 gal
Application event totals		55.19	56,939.55	111.10	785.28	

03/06/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	3.51	0.00	0.93	232.75	7,258,340.26 gal
Lagoon Water Effluent	Process wastewater	34.52	37,926.69	73.41	374.93	561,604.91 gal
Application event totals		38.03	37,926.69	74.34	607.68	

M2

Field name: M2

Crop: Corn, Late Silage

Plant date: 04/12/2023

04/12/2023: Corn, Late Silage

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
04/01/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	476.00 <i>Lbs</i>
Corral Solids	Corral Solids	146.42	40.24	70.12	4,337.28	272.00 <i>ton</i>
Application event totals		160.42	40.24	70.12	4,337.28	
04/03/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	2.53	0.00	0.67	167.44	3,287,678.08 <i>gal</i>
Application event totals		2.53	0.00	0.67	167.44	
04/27/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	3.05	0.00	0.81	202.28	3,971,803.09 <i>gal</i>
Lagoon Water Effluent	Process wastewater	17.31	19,012.86	36.80	187.95	177,263.18 <i>gal</i>
Application event totals		20.36	19,012.86	37.61	390.23	
05/18/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	2.19	0.00	0.58	145.39	2,854,675.74 <i>gal</i>
Lagoon Water Effluent	Process wastewater	25.87	18,474.45	57.25	284.13	238,197.38 <i>gal</i>
Application event totals		28.06	18,474.45	57.83	429.52	
06/02/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	17.24	12,316.30	38.16	189.42	158,798.27 <i>gal</i>
Well Water	Ground water	4.32	0.00	1.14	286.07	5,617,027.00 <i>gal</i>
Application event totals		21.56	12,316.30	39.30	475.49	
06/17/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	23.26	16,612.68	51.48	255.50	214,193.00 <i>gal</i>

Well Water	Ground water	3.24	0.00	0.85	214.46	4,210,923.57 gal
Application event totals		26.50	16,612.68	52.33	469.96	
07/02/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	4.78	0.00	1.26	316.82	6,220,829.52 gal
Lagoon Water Effluent	Process wastewater	8.62	6,158.15	19.08	94.71	79,399.13 gal
Application event totals		13.40	6,158.15	20.34	411.53	
07/17/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	5.17	0.00	1.36	342.45	6,723,998.50 gal
Lagoon Water Effluent	Process wastewater	12.93	9,237.22	28.62	142.07	119,098.69 gal
Application event totals		18.10	9,237.22	29.98	484.52	

10/20/2022: Triticale

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
10/20/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Solids	Corral Solids	138.24	37.81	103.82	3,594.24	204.00 ton
Application event totals		138.24	37.81	103.82	3,594.24	
10/25/2022	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	3.19	0.00	0.74	318.15	4,431,579.59 gal
Application event totals		3.19	0.00	0.74	318.15	
11/21/2022	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	32.83	32,402.35	65.64	463.53	305,594.33 gal
Canal Water	Ground water	2.94	0.00	0.68	292.70	4,077,052.95 gal
Application event totals		35.77	32,402.35	66.32	756.23	
12/21/2022	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	34.52	34,066.52	69.01	487.34	321,289.50 gal
Well Water	Ground water	2.75	0.00	0.64	274.40	3,822,237.12 gal

Application event totals		37.27	34,066.52	69.65	761.74	
01/17/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	3.06	0.00	0.81	202.94	3,984,728.47 gal
Lagoon Water Effluent	Process wastewater	51.78	51,099.78	103.52	731.01	481,934.27 gal
Application event totals		54.84	51,099.78	104.33	933.95	
02/10/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	3.20	0.00	0.84	212.06	4,163,838.37 gal
Lagoon Water Effluent	Process wastewater	51.83	56,939.55	110.21	562.88	530,866.27 gal
Application event totals		55.03	56,939.55	111.05	774.94	
03/06/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	34.52	37,926.69	73.41	374.93	353,603.09 gal
Canal Water	Ground water	3.82	0.00	1.01	253.44	4,976,294.26 gal
Application event totals		38.34	37,926.69	74.42	628.37	

Field name: M3

Crop: Corn, Late Silage

Plant date: 04/14/2023

04/14/2023: Corn, Late Silage

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
04/01/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Solids	Corral Solids	146.42	40.24	70.12	4,337.28	248.00 ton
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	434.00 Lbs
Application event totals		160.42	40.24	70.12	4,337.28	
04/03/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	3.62	0.00	0.95	239.61	4,289,725.18 gal
Application event totals		3.62	0.00	0.95	239.61	
04/29/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	2.99	0.00	0.79	198.14	3,547,273.13 gal
Lagoon Water Effluent	Process wastewater	15.50	17,032.35	32.97	168.37	144,786.66 gal
Application event totals		18.49	17,032.35	33.76	366.51	
05/20/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	27.67	19,763.36	61.24	303.96	232,332.06 gal
Canal Water	Ground water	3.48	0.00	0.92	230.40	4,124,736.06 gal
Application event totals		31.15	19,763.36	62.16	534.36	
06/04/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	4.11	0.00	1.09	272.72	4,882,340.71 gal
Lagoon Water Effluent	Process wastewater	26.77	19,118.91	59.24	294.04	224,756.01 gal
Application event totals		30.88	19,118.91	60.33	566.76	
06/19/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	4.27	0.00	1.13	282.97	5,065,849.32 gal

Lagoon Water Effluent	Process wastewater	20.75	14,822.52	45.93	227.97	174,249.05 gal
Application event totals		25.02	14,822.52	47.06	510.94	
07/04/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	4.40	0.00	1.16	291.29	5,214,844.92 gal
Application event totals		4.40	0.00	1.16	291.29	
07/19/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	4.02	0.00	1.06	266.37	4,768,699.83 gal
Lagoon Water Effluent	Process wastewater	17.24	12,316.30	38.16	189.42	144,786.66 gal
Application event totals		21.26	12,316.30	39.22	455.79	

10/20/2022: Tricale

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
10/20/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Solids	Corral Solids	138.24	37.81	103.82	3,594.24	186.00 ton
Application event totals		138.24	37.81	103.82	3,594.24	
10/25/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	2.87	0.00	0.66	286.33	3,636,502.07 gal
Application event totals		2.87	0.00	0.66	286.33	
11/21/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	2.69	0.00	0.62	268.44	3,409,220.72 gal
Lagoon Water Effluent	Process wastewater	25.89	25,549.89	51.76	365.51	219,705.33 gal
Application event totals		28.58	25,549.89	52.38	633.95	
12/21/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	2.63	0.00	0.61	262.47	3,333,460.13 gal
Lagoon Water Effluent	Process wastewater	43.15	42,583.15	86.27	609.18	366,175.54 gal
Application event totals		45.78	42,583.15	86.88	871.65	
01/17/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	51.78	51,099.78	103.52	731.01	439,410.66 gal
Well Water	Ground water	3.47	0.00	0.92	230.16	4,120,527.05 gal
Application event totals		55.25	51,099.78	104.44	961.17	
02/10/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	41.46	45,551.64	88.17	450.30	387,220.12 gal
Well Water	Ground water	3.67	0.00	0.97	243.09	4,352,017.42 gal
Application event totals		45.13	45,551.64	89.14	693.39	
03/06/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	3.16	0.00	0.83	209.47	3,750,142.55 gal
Lagoon Water Effluent	Process wastewater	51.83	56,939.55	110.21	562.88	484,025.13 gal
Application event totals		54.99	56,939.55	111.04	772.35	

Field name: M4

Crop: Corn, Late Silage

Plant date: 04/15/2023

04/15/2023: Corn, Late Silage

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
04/01/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	476.00 <i>Lbs</i>
Corral Solids	Corral Solids	146.42	40.24	70.12	4,337.28	272.00 <i>ton</i>
Application event totals		160.42	40.24	70.12	4,337.28	
04/03/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	3.37	0.00	0.89	223.44	4,387,263.92 <i>gal</i>
Application event totals		3.37	0.00	0.89	223.44	
04/30/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	3.41	0.00	0.90	225.70	4,431,579.59 <i>gal</i>
Application event totals		3.41	0.00	0.90	225.70	
05/21/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	17.24	12,316.30	38.16	189.42	158,798.27 <i>gal</i>
Well Water	Ground water	3.69	0.00	0.97	244.60	4,802,723.88 <i>gal</i>
Application event totals		20.93	12,316.30	39.13	434.02	
06/05/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	4.28	0.00	1.13	283.62	5,569,018.19 <i>gal</i>
Lagoon Water Effluent	Process wastewater	21.56	15,395.38	47.71	236.78	198,497.83 <i>gal</i>
Application event totals		25.84	15,395.38	48.84	520.40	
06/20/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	3.69	0.00	0.97	244.50	4,800,877.52 <i>gal</i>
Lagoon Water Effluent	Process wastewater	25.87	18,474.45	57.25	284.13	238,197.38 <i>gal</i>

Application event totals		29.56	18,474.45	58.22	528.63	
07/05/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	22.46	16,039.83	49.70	246.69	206,807.05 gal
Canal Water	Ground water	4.43	0.00	1.17	293.40	5,761,053.02 gal
Application event totals		26.89	16,039.83	50.87	540.09	
07/20/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	4.06	0.00	1.07	268.95	5,280,965.27 gal
Application event totals		4.06	0.00	1.07	268.95	

10/20/2022: Triticale

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
10/20/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Solids	Corral Solids	115.20	31.51	86.52	2,995.20	170.00 ton
Application event totals		115.20	31.51	86.52	2,995.20	
10/25/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	2.99	0.00	0.69	298.27	4,154,605.70 gal
Application event totals		2.99	0.00	0.69	298.27	
11/21/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	25.89	25,549.89	51.76	365.51	240,967.14 gal
Well Water	Ground water	2.42	0.00	0.56	241.60	3,365,230.60 gal
Application event totals		28.31	25,549.89	52.32	607.11	
12/21/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	43.15	42,583.15	86.27	609.18	401,611.89 gal
Well Water	Ground water	2.51	0.00	0.58	250.54	3,489,868.76 gal
Application event totals		45.66	42,583.15	86.85	859.72	

01/17/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	3.51	0.00	0.93	232.75	4,570,066.09 gal
Lagoon Water Effluent	Process wastewater	51.78	51,099.78	103.52	731.01	481,934.27 gal
Application event totals		55.29	51,099.78	104.45	963.76	
02/10/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	3.79	0.00	1.00	250.85	4,925,515.90 gal
Lagoon Water Effluent	Process wastewater	41.46	45,551.64	88.17	450.30	424,693.03 gal
Application event totals		45.25	45,551.64	89.17	701.15	
03/06/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	51.83	56,939.55	110.21	562.88	530,866.27 gal
Canal Water	Ground water	3.12	0.00	0.82	206.89	4,062,281.21 gal
Application event totals		54.95	56,939.55	111.03	769.77	

M5

Field name: M5

Crop: Corn, Late Silage

Plant date: 04/17/2023

04/17/2023: Corn, Late Silage

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
04/20/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	546.00 <i>Lbs</i>
Corral Solids	Corral Solids	183.03	50.30	87.65	5,421.60	390.00 <i>ton</i>
Application event totals		197.03	50.30	87.65	5,421.60	
04/22/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	2.46	1,055.06	0.87	211.01	4,930,783.94 <i>gal</i>
Application event totals		2.46	1,055.06	0.87	211.01	
05/21/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	2.67	1,144.34	0.95	228.87	5,348,036.75 <i>gal</i>
Application event totals		2.67	1,144.34	0.95	228.87	
06/11/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	2.72	1,167.23	0.96	233.45	5,454,997.30 <i>gal</i>
Lagoon Water Effluent	Process wastewater	17.24	12,316.30	38.16	189.42	182,150.95 <i>gal</i>
Application event totals		19.96	13,483.53	39.12	422.87	
06/26/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	3.16	1,353.72	1.12	270.74	6,326,568.36 <i>gal</i>
Lagoon Water Effluent	Process wastewater	21.56	15,395.38	47.71	236.78	227,688.69 <i>gal</i>
Application event totals		24.72	16,749.10	48.83	507.52	
07/11/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	2.72	1,167.00	0.96	233.40	5,453,938.36 <i>gal</i>
Lagoon Water Effluent	Process wastewater	25.87	18,474.45	57.25	284.13	273,226.41 <i>gal</i>

Application event totals		28.59	19,641.45	58.21	517.53	
07/26/2023	Surface (Irrigation)		No precipitation	No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	22.46	16,039.83	49.70	246.69	237,219.85 gal
Well Water	Ground water	3.36	1,441.19	1.19	288.24	6,735,349.14 gal
Application event totals		25.82	17,481.02	50.89	534.93	
08/10/2023	Surface (Irrigation)		No precipitation	No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	2.99	1,283.70	1.06	256.74	5,999,332.05 gal
Application event totals		2.99	1,283.70	1.06	256.74	

10/20/2022: Triticale

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
10/20/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Solids	Corral Solids	115.20	31.51	86.52	2,995.20	195.00 ton
Application event totals		115.20	31.51	86.52	2,995.20	
11/19/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	3.34	1,029.91	0.85	298.67	4,813,232.97 gal
Application event totals		3.34	1,029.91	0.85	298.67	
12/16/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	2.74	846.36	0.70	245.44	3,955,428.90 gal
Lagoon Water Effluent	Process wastewater	25.89	25,549.89	51.76	365.51	276,403.48 gal
Application event totals		28.63	26,396.25	52.46	610.95	
01/15/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	1.93	825.97	0.68	165.19	3,860,117.45 gal
Lagoon Water Effluent	Process wastewater	43.15	42,583.15	86.27	609.18	460,672.46 gal
Application event totals		45.08	43,409.12	86.95	774.37	

02/11/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	51.78	51,099.78	103.52	731.01	552,806.96 gal
Well Water	Ground water	2.56	1,096.76	0.91	219.35	5,125,643.11 gal
Application event totals		54.34	52,196.54	104.43	950.36	
03/07/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	41.46	45,551.64	88.17	450.30	487,147.89 gal
Well Water	Ground water	2.41	1,034.44	0.85	206.89	4,834,413.30 gal
Application event totals		43.87	46,586.08	89.02	657.19	
03/31/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	2.62	1,121.68	0.93	224.34	5,242,134.63 gal
Lagoon Water Effluent	Process wastewater	51.83	56,939.55	110.21	562.88	608,934.84 gal
Application event totals		54.45	58,061.23	111.14	787.22	

M6

Field name: M6

Crop: Corn, Late Silage

Plant date: 04/19/2023

04/19/2023: Corn, Late Silage

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
04/15/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Solids	Corral Solids	164.73	45.27	78.88	4,879.44	585.00 ton
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	910.00 Lbs
Application event totals		178.73	45.27	78.88	4,879.44	
04/17/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	1.04	1,119.42	0.32	190.30	8,719,240.37 gal
Application event totals		1.04	1,119.42	0.32	190.30	
05/27/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	0.93	993.88	0.28	168.96	7,741,415.56 gal
Lagoon Water Effluent	Process wastewater	15.54	11,098.99	34.39	170.70	273,579.43 gal
Application event totals		16.47	12,092.87	34.67	339.66	
06/17/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	27.67	19,763.36	61.24	303.96	487,147.87 gal
Well Water	Ground water	1.01	1,088.15	0.31	184.98	8,475,667.25 gal
Application event totals		28.68	20,851.51	61.55	488.94	
07/02/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	1.27	1,366.87	0.39	232.37	10,646,652.41 gal
Lagoon Water Effluent	Process wastewater	26.77	19,118.91	59.24	294.04	471,262.61 gal
Application event totals		28.04	20,485.78	59.63	526.41	
07/17/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	1.27	1,363.69	0.39	231.83	10,621,942.12 gal

Lagoon Water Effluent	Process wastewater	20.75	14,822.52	45.93	227.97	365,360.92 gal
Application event totals		22.02	16,186.21	46.32	459.80	
08/01/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	1.29	1,390.43	0.40	236.37	10,830,215.54 gal
Application event totals		1.29	1,390.43	0.40	236.37	
08/16/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	1.21	1,296.17	0.37	220.35	10,095,963.02 gal
Lagoon Water Effluent	Process wastewater	17.24	12,316.30	38.16	189.42	303,584.92 gal
Application event totals		18.45	13,612.47	38.53	409.77	

10/27/2022: Triticale

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
10/27/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Solids	Corral Solids	105.22	25.28	43.76	408.98	845.00 ton
Application event totals		105.22	25.28	43.76	408.98	
11/24/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	3.63	927.94	0.83	271.42	7,227,791.60 gal
Application event totals		3.63	927.94	0.83	271.42	
12/21/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	25.89	25,549.89	51.76	365.51	460,672.47 gal
Canal Water	Ground water	3.19	815.77	0.73	238.61	6,354,102.66 gal
Application event totals		29.08	26,365.66	52.49	604.12	
01/20/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	43.15	42,583.15	86.27	609.18	767,787.43 gal
Canal Water	Ground water	0.85	907.54	0.26	154.28	7,068,939.60 gal
Application event totals		44.00	43,490.69	86.53	763.46	
02/16/2023	Surface (Irrigation)		No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	0.96	1,034.44	0.30	175.85	8,057,355.50 gal
Lagoon Water Effluent	Process wastewater	51.83	56,939.55	110.21	562.88	1,014,891.40 gal
Application event totals		52.79	57,973.99	110.51	738.73	
03/12/2023	Surface (Irrigation)		No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	1.06	1,134.15	0.32	192.80	8,833,968.16 gal
Lagoon Water Effluent	Process wastewater	41.46	45,551.64	88.17	450.30	811,913.15 gal
Application event totals		42.52	46,685.79	88.49	643.10	
04/05/2023	Surface (Irrigation)		No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	51.83	56,939.55	110.21	562.88	1,014,891.40 gal
Well Water	Ground water	1.14	1,221.39	0.35	207.64	9,513,503.72 gal
Application event totals		52.97	58,160.94	110.56	770.52	

Field name: M7

Crop: Corn, Late Silage

Plant date: 04/19/2023

04/19/2023: Corn, Late Silage

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
04/01/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	1,092.00 <i>Lbs</i>
Corral Solids	Corral Solids	201.33	55.33	96.41	5,963.76	858.00 <i>ton</i>
Application event totals		215.33	55.33	96.41	5,963.76	
04/03/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	0.76	879.22	0.25	153.86	8,217,973.24 <i>gal</i>
Application event totals		0.76	879.22	0.25	153.86	
05/25/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	0.78	897.35	0.26	157.04	8,387,415.82 <i>gal</i>
Lagoon Water Effluent	Process wastewater	17.24	12,316.30	38.16	189.42	364,301.91 <i>gal</i>
Application event totals		18.02	13,213.65	38.42	346.46	
06/15/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	0.77	888.28	0.25	155.45	8,302,694.53 <i>gal</i>
Lagoon Water Effluent	Process wastewater	25.87	18,474.45	57.25	284.13	546,452.81 <i>gal</i>
Application event totals		26.64	19,362.73	57.50	439.58	
06/30/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	17.24	12,316.30	38.16	189.42	364,301.91 <i>gal</i>
Well Water	Ground water	1.18	1,359.62	0.39	237.93	12,708,205.66 <i>gal</i>
Application event totals		18.42	13,675.92	38.55	427.35	
07/15/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	1.18	1,359.62	0.39	237.93	12,708,205.66 <i>gal</i>

Lagoon Water Effluent	Process wastewater	23.26	16,612.68	51.48	255.50	491,383.94 gal
Application event totals		24.44	17,972.30	51.87	493.43	
07/30/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	1.24	1,427.60	0.41	249.83	13,343,616.35 gal
Lagoon Water Effluent	Process wastewater	8.62	6,158.15	19.08	94.71	182,150.95 gal
Application event totals		9.86	7,585.75	19.49	344.54	
08/14/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	1.22	1,414.00	0.40	247.45	13,216,533.40 gal
Lagoon Water Effluent	Process wastewater	12.93	9,237.22	28.62	142.07	273,226.41 gal
Application event totals		14.15	10,651.22	29.02	389.52	

10/29/2022: Triticale

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
10/01/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Solids	Corral Solids	137.59	33.06	57.23	534.82	1,326.00 ton
Application event totals		137.59	33.06	57.23	534.82	
11/23/2022	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	3.05	784.95	0.77	227.64	7,336,870.71 gal
Application event totals		3.05	784.95	0.77	227.64	
12/20/2022	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	4.29	1,102.87	1.08	319.83	10,308,473.04 gal
Lagoon Water Effluent	Process wastewater	32.83	32,402.35	65.64	463.53	701,069.35 gal
Application event totals		37.12	33,505.22	66.72	783.36	
01/19/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	0.70	803.53	0.23	140.62	7,510,549.55 gal
Lagoon Water Effluent	Process wastewater	34.52	34,066.52	69.01	487.34	737,075.91 gal

Application event totals		35.22	34,870.05	69.24	627.96	
02/15/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	51.83	56,939.55	110.21	562.88	1,217,869.68 gal
Well Water	Ground water	0.66	759.12	0.22	132.85	7,095,414.63 gal
Application event totals		52.49	57,698.67	110.43	695.73	
03/11/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	51.83	56,939.55	110.21	562.88	1,217,869.68 gal
Canal Water	Ground water	1.00	1,154.31	0.33	202.00	10,789,266.32 gal
Application event totals		52.83	58,093.86	110.54	764.88	
04/04/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	0.76	882.62	0.25	154.46	8,249,743.47 gal
Lagoon Water Effluent	Process wastewater	34.52	37,926.69	73.41	374.93	811,207.10 gal
Application event totals		35.28	38,809.31	73.66	529.39	

Field name: M8

Crop: Corn, Late Silage

Plant date: 04/20/2023

04/20/2023: Corn, Late Silage

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
04/01/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Solids	Corral Solids	109.82	30.18	52.59	3,252.96	438.00 ton
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	1,022.00 Lbs
Application event totals		123.82	30.18	52.59	3,252.96	
04/03/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	1.00	1,154.77	0.33	202.08	10,101,610.92 gal
Application event totals		1.00	1,154.77	0.33	202.08	
05/05/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	15.54	11,098.99	34.39	170.70	307,250.74 gal
Canal Water	Ground water	0.83	954.90	0.27	167.11	8,353,256.09 gal
Application event totals		16.37	12,053.89	34.66	337.81	
05/26/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	27.67	19,763.36	61.24	303.96	547,104.53 gal
Canal Water	Ground water	0.97	1,121.46	0.32	196.25	9,810,218.60 gal
Application event totals		28.64	20,884.82	61.56	500.21	
06/10/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	1.16	1,340.58	0.38	234.60	11,727,067.74 gal
Lagoon Water Effluent	Process wastewater	26.77	19,118.91	59.24	294.04	529,264.16 gal
Application event totals		27.93	20,459.49	59.62	528.64	
06/25/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	1.16	1,336.95	0.38	233.97	11,695,351.00 gal

Lagoon Water Effluent	Process wastewater	20.75	14,822.52	45.93	227.97	410,328.41 gal
Application event totals		21.91	16,159.47	46.31	461.94	
07/10/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	1.23	1,417.17	0.41	248.01	12,397,072.23 gal
Application event totals		1.23	1,417.17	0.41	248.01	
07/25/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	1.12	1,296.17	0.37	226.83	11,338,543.08 gal
Lagoon Water Effluent	Process wastewater	17.24	12,316.30	38.16	189.42	340,949.22 gal
Application event totals		18.36	13,612.47	38.53	416.25	

11/01/2022: Triticale

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
10/28/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Solids	Corral Solids	153.78	36.95	63.96	597.74	1,387.00 ton
Application event totals		153.78	36.95	63.96	597.74	
11/22/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	4.15	1,065.94	1.04	309.12	9,324,564.43 gal
Application event totals		4.15	1,065.94	1.04	309.12	
12/19/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	32.83	32,402.35	65.64	463.53	656,129.00 gal
Canal Water	Ground water	3.41	875.59	0.86	253.92	7,659,463.34 gal
Application event totals		36.24	33,277.94	66.50	717.45	
01/18/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	34.52	34,066.52	69.01	487.34	689,827.45 gal
Canal Water	Ground water	0.77	886.02	0.25	155.05	7,750,647.44 gal
Application event totals		35.29	34,952.54	69.26	642.39	
02/14/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	0.83	954.45	0.27	167.03	8,349,290.91 gal
Lagoon Water Effluent	Process wastewater	51.83	56,939.55	110.21	562.88	1,139,801.11 gal
Application event totals		52.66	57,894.00	110.48	729.91	
03/10/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	1.00	1,159.07	0.33	202.84	10,139,274.02 gal
Lagoon Water Effluent	Process wastewater	51.83	56,939.55	110.21	562.88	1,139,801.11 gal
Application event totals		52.83	58,098.62	110.54	765.72	
04/03/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	34.52	37,926.69	73.41	374.93	759,206.64 gal
Well Water	Ground water	0.98	1,134.15	0.32	198.48	9,921,225.79 gal
Application event totals		35.50	39,060.84	73.73	573.41	

Field name: M9

Crop: Corn, Late Silage

Plant date: 04/21/2023

04/21/2023: Corn, Late Silage

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
04/01/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	1,022.00 <i>Lbs</i>
Corral Solids	Corral Solids	219.64	60.36	105.18	6,505.92	876.00 <i>ton</i>
Application event totals		233.64	60.36	105.18	6,505.92	
04/03/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	1.16	915.47	2,746.42	160.21	8,008,341.83 <i>gal</i>
Application event totals		1.16	915.47	2,746.42	160.21	
05/24/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	1.16	915.47	2,746.42	160.21	8,008,341.83 <i>gal</i>
Lagoon Water Effluent	Process wastewater	17.24	12,316.30	38.16	189.42	340,949.22 <i>gal</i>
Application event totals		18.40	13,231.77	2,784.58	349.63	
06/14/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	25.87	18,474.45	57.25	284.13	511,423.79 <i>gal</i>
Well Water	Ground water	1.14	906.41	2,719.23	158.62	7,929,051.40 <i>gal</i>
Application event totals		27.01	19,380.86	2,776.48	442.75	
06/29/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	17.24	12,316.30	38.16	189.42	340,949.22 <i>gal</i>
Well Water	Ground water	1.78	1,414.00	4,242.00	247.45	12,369,319.72 <i>gal</i>
Application event totals		19.02	13,730.30	4,280.16	436.87	
07/14/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	1.70	1,346.02	4,038.06	235.55	11,774,641.44 <i>gal</i>

Lagoon Water Effluent	Process wastewater	23.26	16,612.68	51.48	255.50	459,884.97 gal
Application event totals		24.96	17,958.70	4,089.54	491.05	
07/29/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	1.78	1,414.00	4,242.00	247.45	12,369,319.72 gal
Lagoon Water Effluent	Process wastewater	8.62	6,158.15	19.08	94.71	170,474.61 gal
Application event totals		10.40	7,572.15	4,261.08	342.16	
08/13/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	12.93	9,237.22	28.62	142.07	255,711.89 gal
Canal Water	Ground water	1.77	1,400.40	4,201.21	245.07	12,250,384.07 gal
Application event totals		14.70	10,637.62	4,229.83	387.14	

11/01/2022: Triticale

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
10/28/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Solids	Corral Solids	137.59	33.06	57.23	534.82	1,241.00 ton
Application event totals		137.59	33.06	57.23	534.82	
11/25/2022	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	4.00	1,035.80	0.95	292.61	9,060,923.68 gal
Application event totals		4.00	1,035.80	0.95	292.61	
12/22/2022	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	3.14	811.69	0.74	229.30	7,100,465.56 gal
Lagoon Water Effluent	Process wastewater	25.89	25,549.89	51.76	365.51	517,370.62 gal
Application event totals		29.03	26,361.58	52.50	594.81	
01/21/2023	Surface (Irrigation)		No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	1.38	1,094.26	3,282.79	191.50	9,572,347.29 gal
Lagoon Water Effluent	Process wastewater	43.15	42,583.15	86.27	609.18	862,284.34 gal

Application event totals		44.53	43,677.41	3,369.06	800.68	
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02/17/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	51.83	56,939.55	110.21	562.88	1,139,801.11 gal
Canal Water	Ground water	1.23	972.80	2,918.41	170.24	8,509,854.85 gal
Application event totals		53.06	57,912.35	3,028.62	733.12	

03/13/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	41.46	45,551.64	88.17	450.30	911,840.93 gal
Canal Water	Ground water	1.07	847.04	2,541.12	148.23	7,409,698.36 gal
Application event totals		42.53	46,398.68	2,629.29	598.53	

04/06/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	1.36	1,078.17	3,234.52	188.68	9,431,606.43 gal
Lagoon Water Effluent	Process wastewater	51.83	56,939.55	110.21	562.88	1,139,801.11 gal
Application event totals		53.19	58,017.72	3,344.73	751.56	

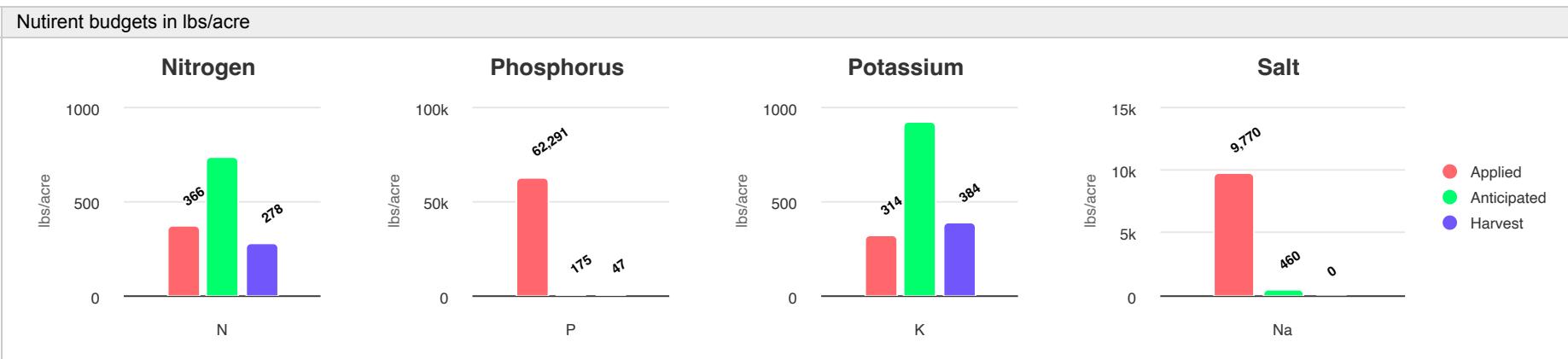
B. NUTRIENT BUDGET

M1 - 04/10/2023: Corn, Late Silage

Field name: M1

Crop: Corn, Late Silage

Plant date: 04/10/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	237.94	65.39	113.94	7,048.08
Process wastewater	87.13	62,225.96	192.82	957.02
Fresh water	26.65	0.00	7.04	1,765.31
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	365.72	62,291.35	313.80	9,770.41
Anticipated crop nutrient removal	736.00	174.80	920.00	460.00
Actual crop nutrient removal	277.93	46.69	384.29	0.00
Nutrient balance	87.79	62,244.66	-70.48	9,770.41
Applied to removed ratio	1.32	1,334.07	0.82	0.00

Fresh water applied	
55,051,947.14	gallons
2,027.38	acre-inches
37.54	inches/acre

Process wastewater applied	
1,274,242.01	gallons
46.93	acre-inches
0.87	inches/acre

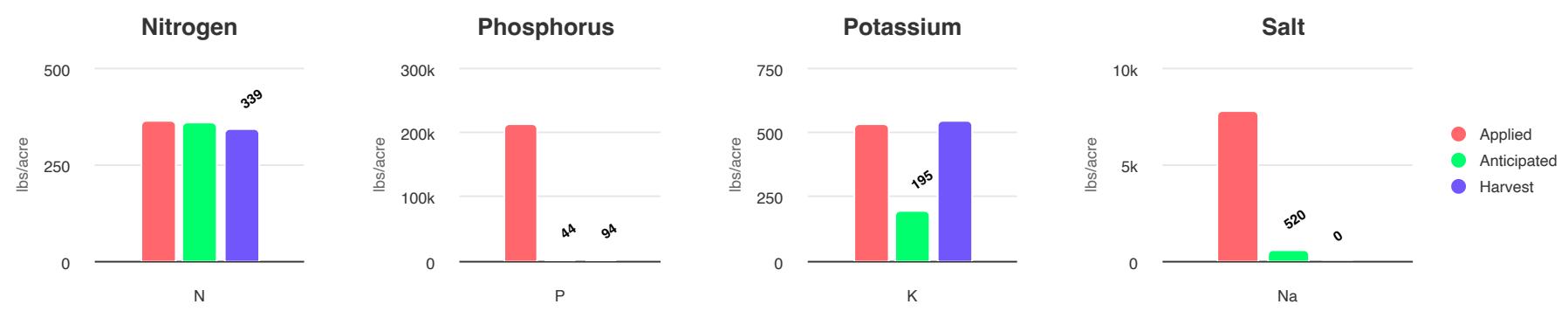
Total Harvests for the crop
1 harvests

Field name: M1

Crop: Triticale

Plant date: 10/20/2022

Nutrient budgets in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	138.24	37.81	103.82	3,594.24
Process wastewater	205.48	212,434.89	421.79	2,619.69
Fresh water	18.48	0.00	4.61	1,503.00
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	362.20	212,472.70	530.22	7,716.93
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	338.61	93.91	542.76	0.00
Nutrient balance	23.59	212,378.79	-12.54	7,716.93
Applied to removed ratio	1.07	2,262.47	0.98	0.00

Fresh water applied

39,347,536.85	gallons
1,449.04	acre-inches
26.83	inches/acre

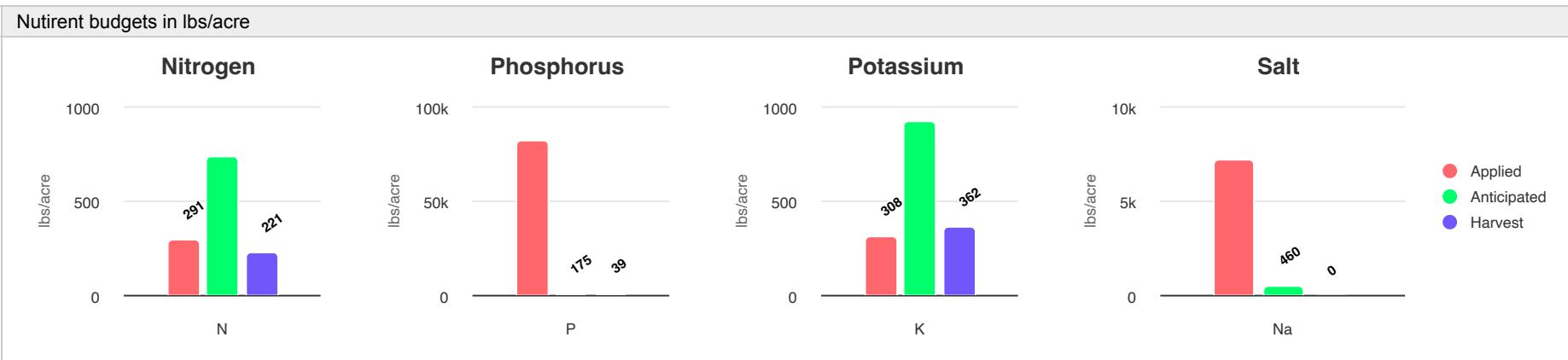
Process wastewater applied

3,165,809.51	gallons
116.59	acre-inches
2.16	inches/acre

Total Harvests for the crop

1	harvests
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Field name: M2 Crop: Corn, Late Silage Plant date: 04/12/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	146.42	40.24	70.12	4,337.28
Process wastewater	105.23	81,811.66	231.39	1,153.78
Fresh water	25.28	0.00	6.67	1,674.91
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	290.93	81,851.90	308.18	7,165.97
Anticipated crop nutrient removal	736.00	174.80	920.00	460.00
Actual crop nutrient removal	220.67	39.18	361.70	0.00
Nutrient balance	70.27	81,812.72	-53.52	7,165.97
Applied to removed ratio	1.32	2,089.31	0.85	0.00

Fresh water applied		
32,886,935.50	gallons	
1,211.11	acre-inches	
35.62	inches/acre	

Process wastewater applied		
986,949.65	gallons	
36.35	acre-inches	
1.07	inches/acre	

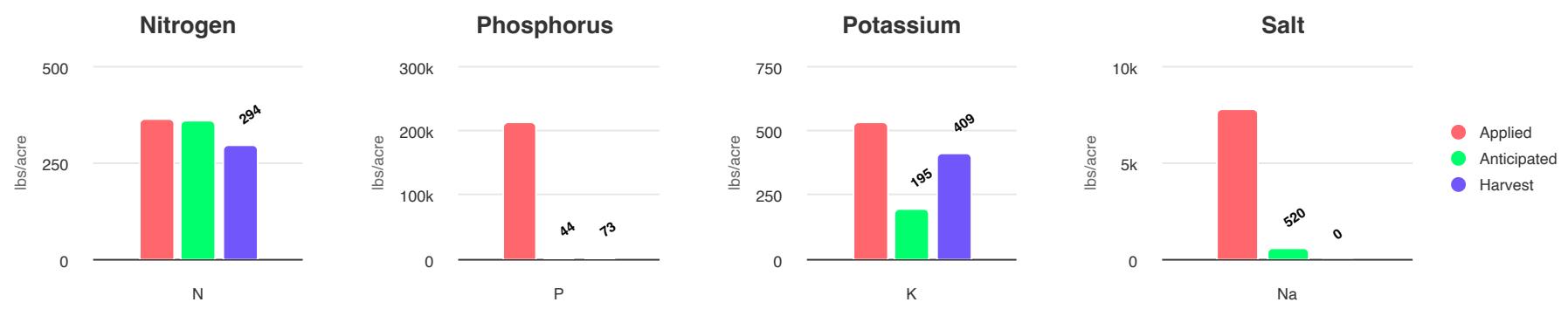
Total Harvests for the crop		
1	harvests	

Field name: M2

Crop: Triticale

Plant date: 10/20/2022

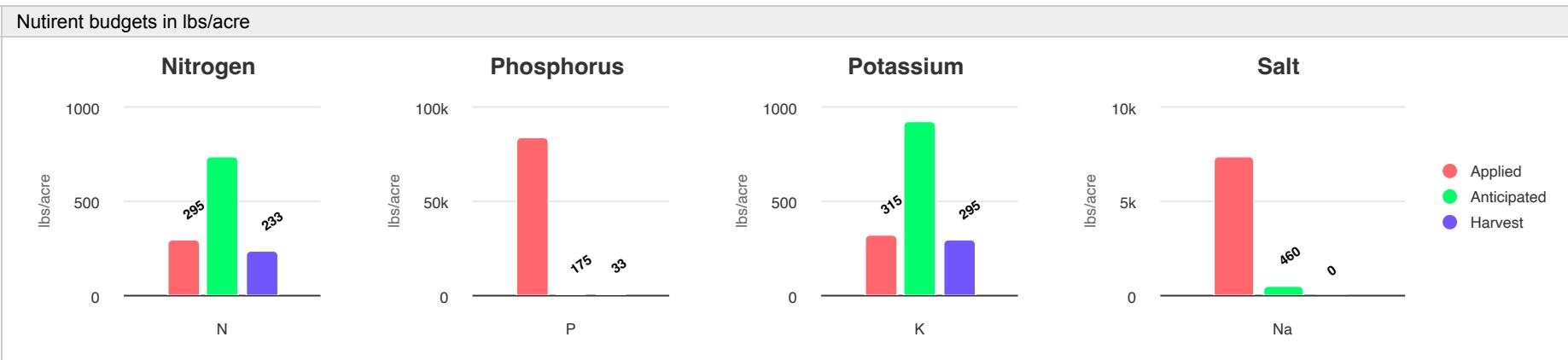
Nutrient budgets in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	138.24	37.81	103.82	3,594.24
Process wastewater	205.48	212,434.89	421.79	2,619.69
Fresh water	18.96	0.00	4.72	1,553.69
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	362.68	212,472.70	530.33	7,767.62
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	293.83	72.77	408.62	0.00
Nutrient balance	68.85	212,399.93	121.71	7,767.62
Applied to removed ratio	1.23	2,919.74	1.30	0.00

Fresh water applied
25,455,730.75 gallons
937.45 acre-inches
27.57 inches/acre
Process wastewater applied
1,993,287.47 gallons
73.41 acre-inches
2.16 inches/acre
Total Harvests for the crop
1 harvests

Field name: M3 Crop: Corn, Late Silage Plant date: 04/14/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	146.42	40.24	70.12	4,337.28
Process wastewater	107.93	83,053.44	237.54	1,183.76
Fresh water	26.89	0.00	7.10	1,781.50
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	295.24	83,093.68	314.76	7,302.54
Anticipated crop nutrient removal	736.00	174.80	920.00	460.00
Actual crop nutrient removal	232.50	33.41	295.33	0.00
Nutrient balance	62.74	83,060.27	19.43	7,302.54
Applied to removed ratio	1.27	2,486.88	1.07	0.00

Fresh water applied		
31,893,469.17	gallons	
1,174.53	acre-inches	
37.89	inches/acre	

Process wastewater applied		
920,910.44	gallons	
33.91	acre-inches	
1.09	inches/acre	

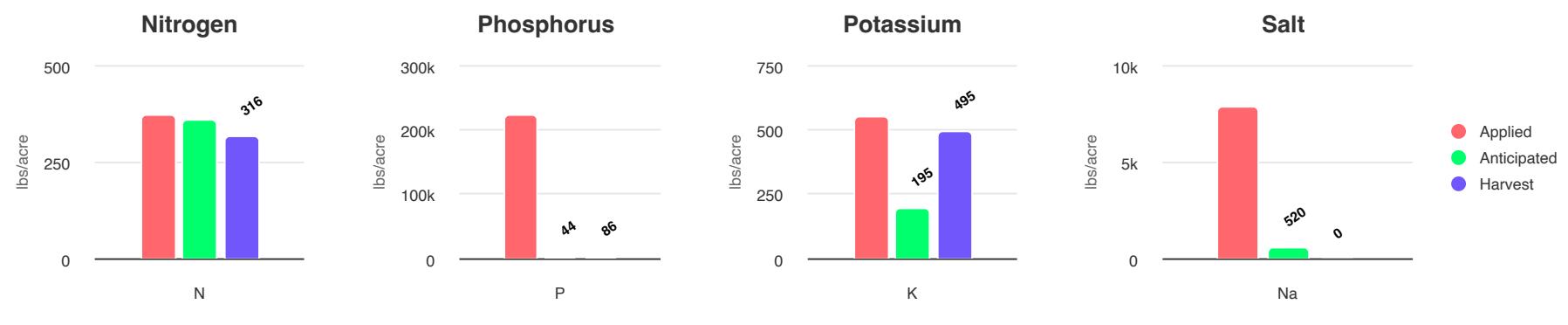
Total Harvests for the crop		
1	harvests	

Field name: M3

Crop: Triticale

Plant date: 10/20/2022

Nutrient budgets in lbs/acre



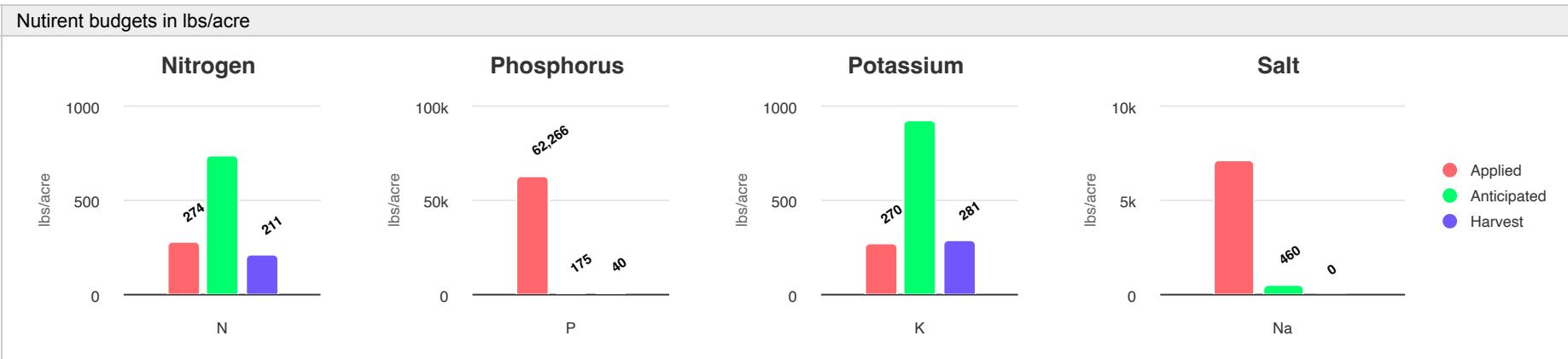
	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	138.24	37.81	103.82	3,594.24
Process wastewater	214.11	221,724.01	439.93	2,718.88
Fresh water	18.49	0.00	4.61	1,499.96
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	370.84	221,761.82	548.36	7,813.08
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	316.39	86.11	494.64	0.00
Nutrient balance	54.45	221,675.70	53.72	7,813.08
Applied to removed ratio	1.17	2,575.22	1.11	0.00

Fresh water applied		
22,601,869.94	gallons	
832.35	acre-inches	
26.85	inches/acre	

Process wastewater applied		
1,896,536.79	gallons	
69.84	acre-inches	
2.25	inches/acre	

Total Harvests for the crop		
1	harvests	

Field name: M4 Crop: Corn, Late Silage Plant date: 04/15/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	146.42	40.24	70.12	4,337.28
Process wastewater	87.13	62,225.96	192.82	957.02
Fresh water	26.93	0.00	7.10	1,784.21
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	274.48	62,266.20	270.04	7,078.51
Anticipated crop nutrient removal	736.00	174.80	920.00	460.00
Actual crop nutrient removal	211.42	40.02	281.34	0.00
Nutrient balance	63.07	62,226.18	-11.30	7,078.51
Applied to removed ratio	1.30	1,555.95	0.96	0.00

Fresh water applied		
35,033,481.38	gallons	
1,290.16	acre-inches	
37.95	inches/acre	

Process wastewater applied		
802,300.52	gallons	
29.55	acre-inches	
0.87	inches/acre	

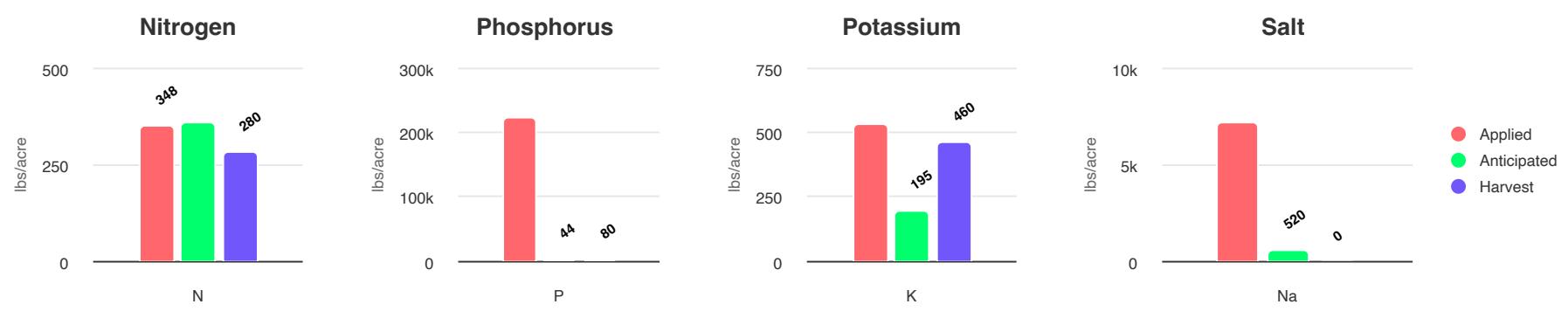
Total Harvests for the crop		
1	harvests	

Field name: M4

Crop: Triticale

Plant date: 10/20/2022

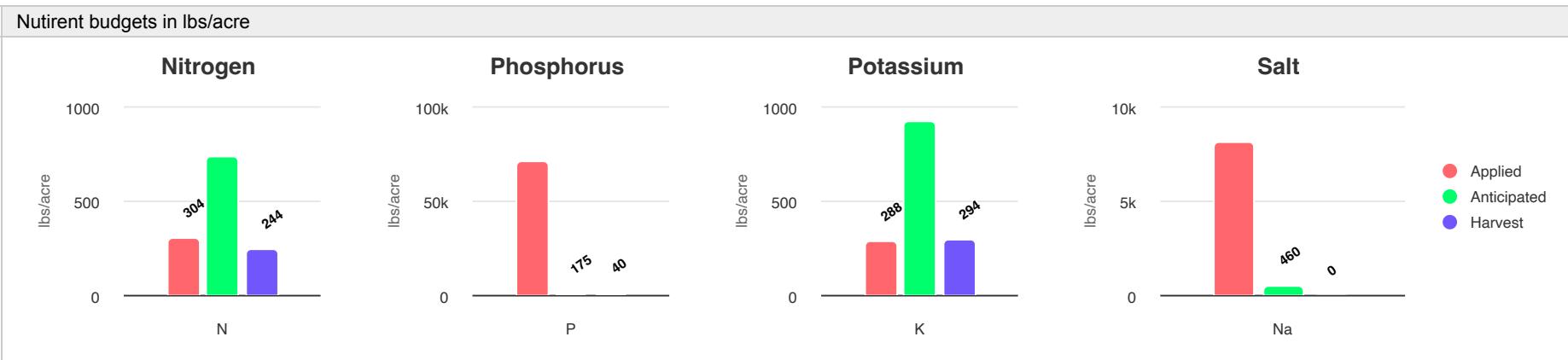
Nutrient budgets in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	115.20	31.51	86.52	2,995.20
Process wastewater	214.11	221,724.01	439.93	2,718.88
Fresh water	18.34	0.00	4.58	1,480.90
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	347.65	221,755.52	531.03	7,194.98
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	280.07	80.23	460.23	0.00
Nutrient balance	67.58	221,675.29	70.80	7,194.98
Applied to removed ratio	1.24	2,764.01	1.15	0.00

Fresh water applied		
24,567,568.26	gallons	
904.74	acre-inches	
26.61	inches/acre	
Process wastewater applied		
2,080,072.60	gallons	
76.60	acre-inches	
2.25	inches/acre	
Total Harvests for the crop		
1	harvests	

Field name: M5 Crop: Corn, Late Silage Plant date: 04/17/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	183.03	50.30	87.65	5,421.60
Process wastewater	87.13	62,225.96	192.82	957.02
Fresh water	20.08	8,612.24	7.11	1,722.45
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	304.24	70,888.50	287.58	8,101.07
Anticipated crop nutrient removal	736.00	174.80	920.00	460.00
Actual crop nutrient removal	244.31	39.64	294.37	0.00
Nutrient balance	59.93	70,848.86	-6.79	8,101.07
Applied to removed ratio	1.25	1,788.45	0.98	0.00

Fresh water applied		
40,249,005.91	gallons	
1,482.23	acre-inches	
38.01	inches/acre	

Process wastewater applied		
920,285.90	gallons	
33.89	acre-inches	
0.87	inches/acre	

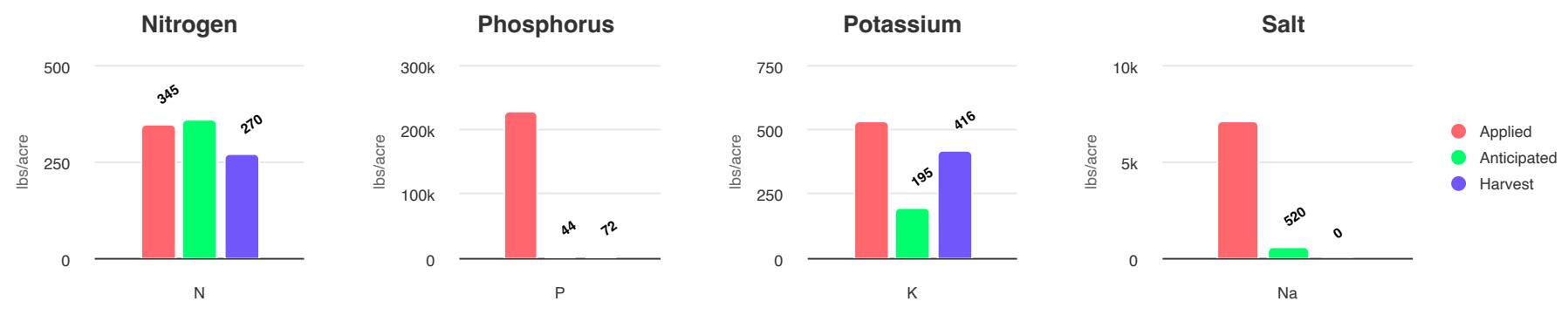
Total Harvests for the crop		
1	harvests	

Field name: M5

Crop: Triticale

Plant date: 10/20/2022

Nutrient budgets in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	115.20	31.51	86.52	2,995.20
Process wastewater	214.11	221,724.01	439.93	2,718.88
Fresh water	15.60	5,955.12	4.92	1,359.88
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	344.91	227,710.64	531.37	7,073.96
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	270.26	71.99	416.16	0.00
Nutrient balance	74.65	227,638.65	115.20	7,073.96
Applied to removed ratio	1.28	3,163.28	1.28	0.00

Fresh water applied
27,830,970.37 gallons
1,024.92 acre-inches
26.28 inches/acre

Process wastewater applied
2,385,965.64 gallons
87.87 acre-inches
2.25 inches/acre

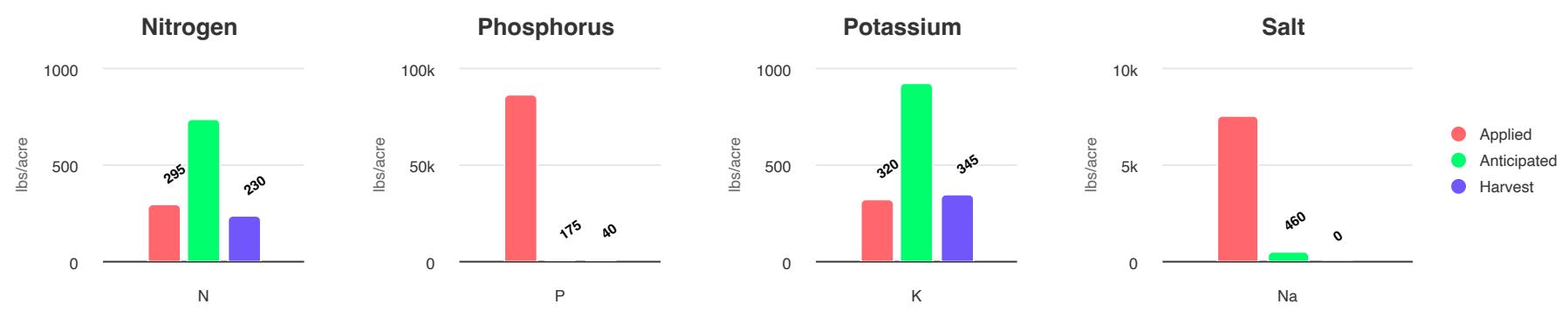
Total Harvests for the crop
1 harvests

Field name: M6

Crop: Corn, Late Silage

Plant date: 04/19/2023

Nutrient budgets in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	164.73	45.27	78.88	4,879.44
Process wastewater	107.97	77,120.08	238.96	1,186.09
Fresh water	8.02	8,618.61	2.46	1,465.16
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	294.72	85,783.96	320.30	7,530.69
Anticipated crop nutrient removal	736.00	174.80	920.00	460.00
Actual crop nutrient removal	229.58	39.67	344.53	0.00
Nutrient balance	65.13	85,744.29	-24.23	7,530.69
Applied to removed ratio	1.28	2,162.45	0.93	0.00

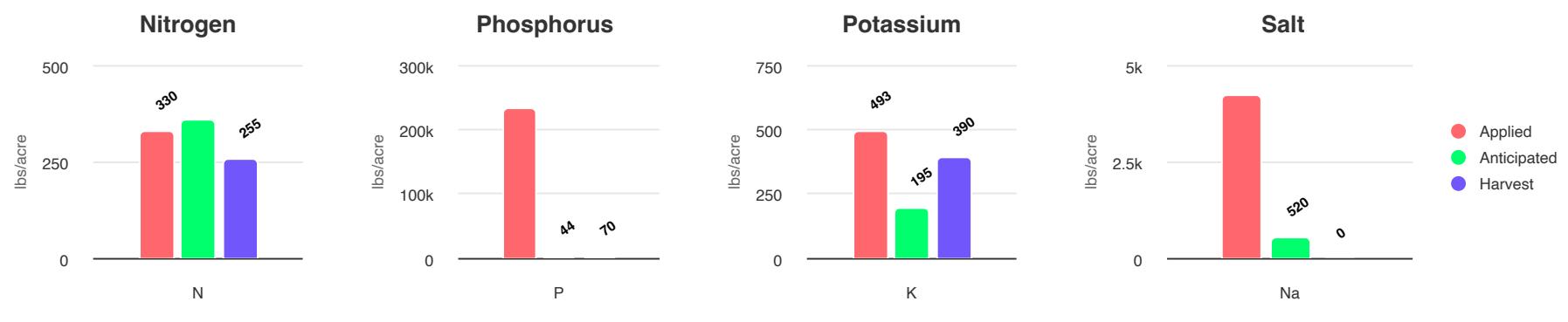
Fresh water applied		
67,131,096.26	gallons	
2,472.21	acre-inches	
38.03	inches/acre	
Process wastewater applied		
1,900,935.75	gallons	
70.00	acre-inches	
1.08	inches/acre	
Total Harvests for the crop		
1	harvests	

Field name: M6

Crop: Triticale

Plant date: 10/27/2022

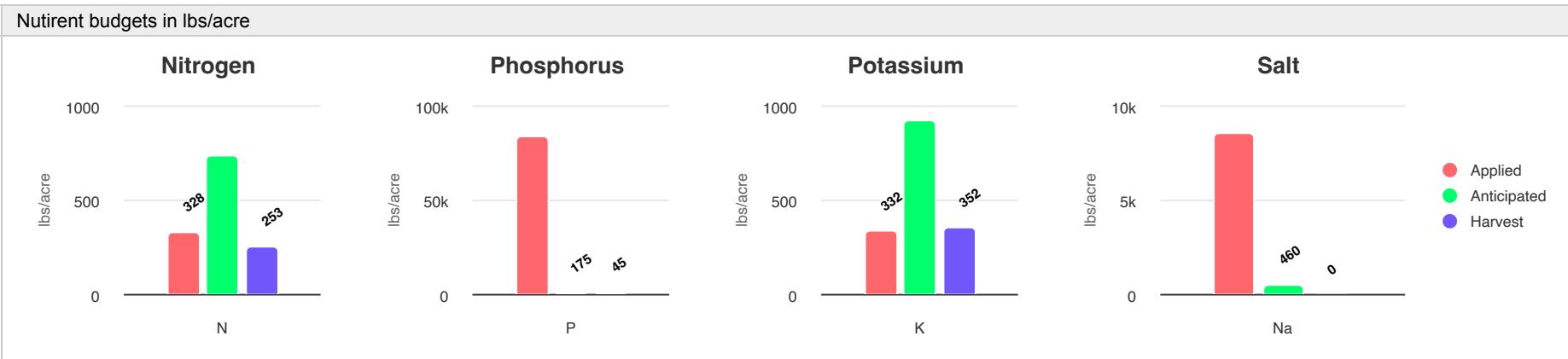
Nutrient budgets in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	105.22	25.28	43.76	408.98
Process wastewater	214.16	227,563.78	446.62	2,550.75
Fresh water	10.83	6,041.23	2.79	1,240.60
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	330.21	233,630.29	493.17	4,200.33
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	254.81	70.01	389.91	0.00
Nutrient balance	75.40	233,560.28	103.26	4,200.33
Applied to removed ratio	1.30	3,337.10	1.26	0.00

Fresh water applied	
47,055,661.25	gallons
1,732.90	acre-inches
26.66	inches/acre
Process wastewater applied	
4,070,155.86	gallons
149.89	acre-inches
2.31	inches/acre
Total Harvests for the crop	
1	harvests

Field name: M7 Crop: Corn, Late Silage Plant date: 04/19/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	201.33	55.33	96.41	5,963.76
Process wastewater	105.16	75,115.10	232.75	1,155.25
Fresh water	7.13	8,225.69	2.35	1,439.49
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	327.62	83,396.12	331.51	8,558.50
Anticipated crop nutrient removal	736.00	174.80	920.00	460.00
Actual crop nutrient removal	253.18	45.47	352.49	0.00
Nutrient balance	74.44	83,350.65	-20.98	8,558.50
Applied to removed ratio	1.29	1,834.27	0.94	0.00

Fresh water applied		
76,884,644.65	gallons	
2,831.40	acre-inches	
36.30	inches/acre	

Process wastewater applied		
2,221,817.93	gallons	
81.82	acre-inches	
1.05	inches/acre	

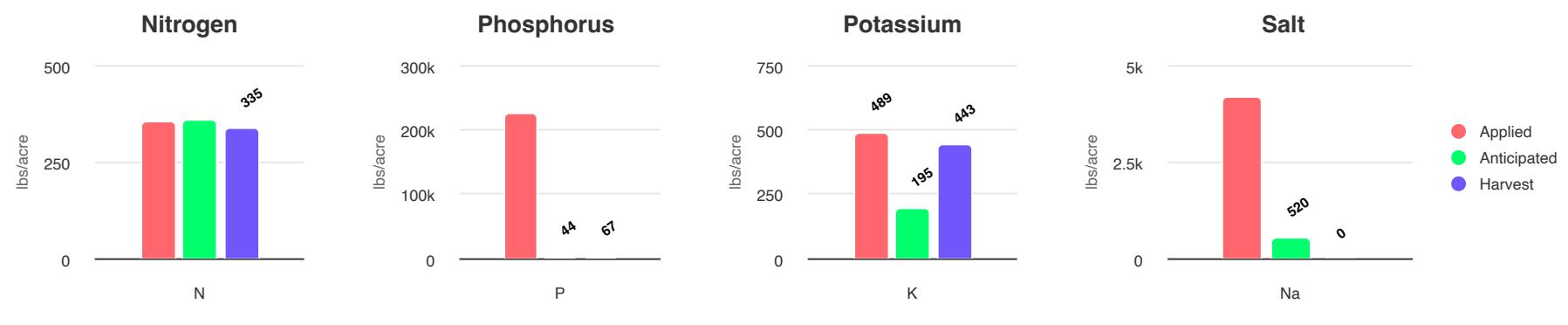
Total Harvests for the crop		
1	harvests	

Field name: M7

Crop: Triticale

Plant date: 10/29/2022

Nutrient budgets in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	137.59	33.06	57.23	534.82
Process wastewater	205.53	218,274.66	428.48	2,451.56
Fresh water	10.46	5,487.40	2.88	1,177.40
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	353.58	223,795.12	488.59	4,163.78
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	334.80	66.65	443.40	0.00
Nutrient balance	18.78	223,728.47	45.19	4,163.78
Applied to removed ratio	1.06	3,357.93	1.10	0.00

Fresh water applied

51,290,317.71 gallons
1,888.85 acre-inches
24.22 inches/acre

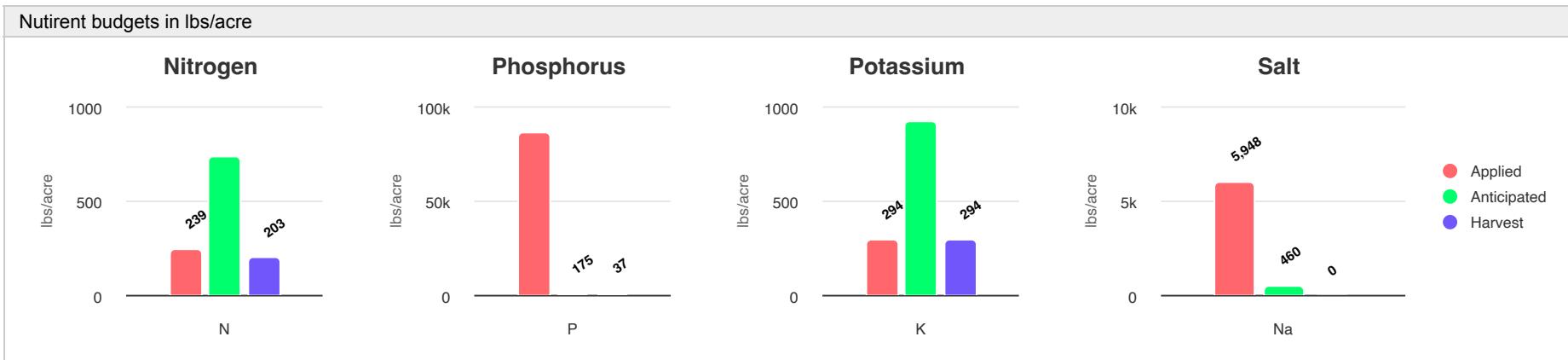
Process wastewater applied

4,685,091.72 gallons
172.54 acre-inches
2.21 inches/acre

Total Harvests for the crop

1 harvests

Field name: M8 Crop: Corn, Late Silage Plant date: 04/20/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	109.82	30.18	52.59	3,252.96
Process wastewater	107.97	77,120.08	238.96	1,186.09
Fresh water	7.47	8,622.00	2.46	1,508.85
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	239.26	85,772.26	294.01	5,947.90
Anticipated crop nutrient removal	736.00	174.80	920.00	460.00
Actual crop nutrient removal	203.28	37.21	294.42	0.00
Nutrient balance	35.98	85,735.05	-0.41	5,947.90
Applied to removed ratio	1.18	2,304.93	1.00	0.00

Fresh water applied
75,423,119.66 gallons
2,777.58 acre-inches
38.05 inches/acre

Process wastewater applied
2,134,897.07 gallons
78.62 acre-inches
1.08 inches/acre

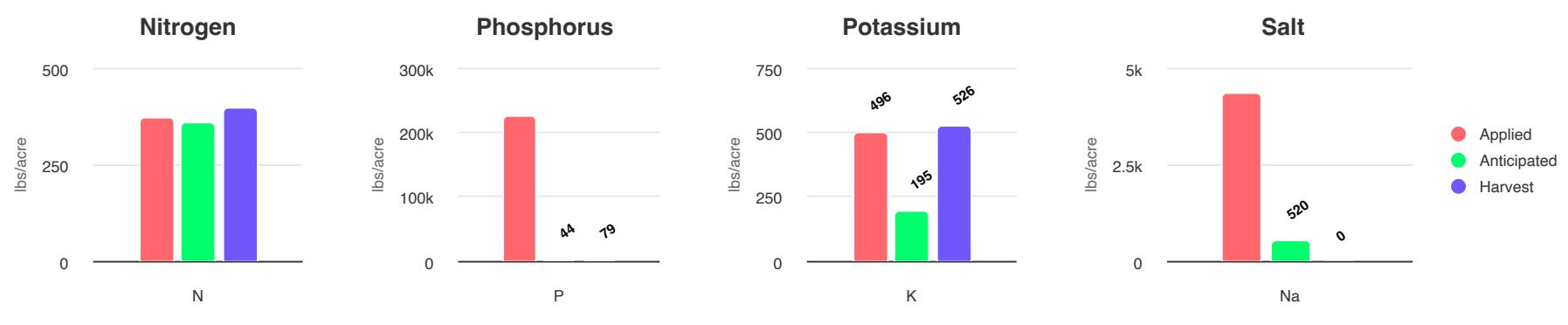
Total Harvests for the crop
1 harvests

Field name: M8

Crop: Triticale

Plant date: 11/01/2022

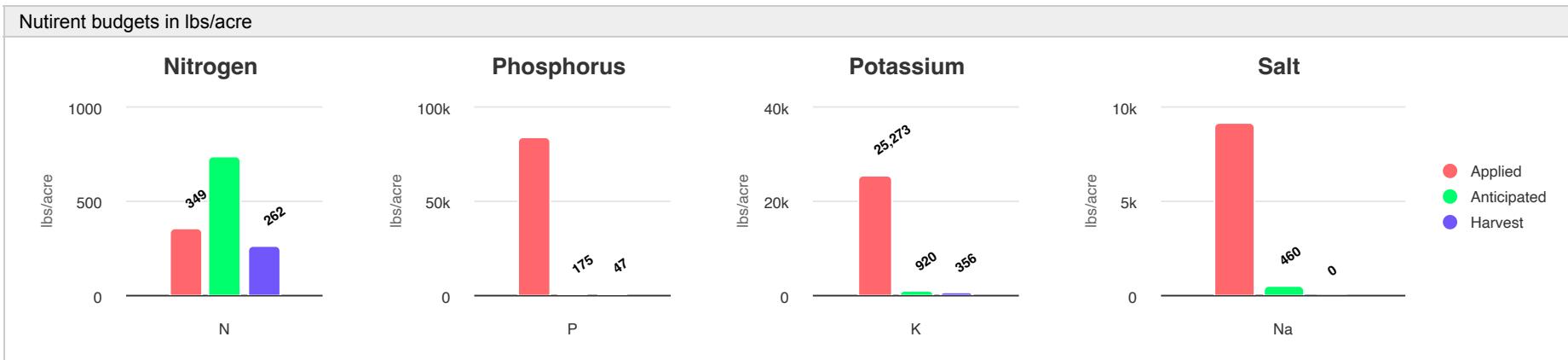
Nutrient budgets in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	153.78	36.95	63.96	597.74
Process wastewater	205.53	218,274.66	428.48	2,451.56
Fresh water	11.14	6,075.22	3.07	1,286.44
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	370.45	224,386.83	495.51	4,335.74
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	397.15	79.06	525.97	0.00
Nutrient balance	-26.70	224,307.77	-30.46	4,335.74
Applied to removed ratio	0.93	2,838.25	0.94	0.00

Fresh water applied		
53,144,465.92	gallons	
1,957.13	acre-inches	
26.81	inches/acre	
Process wastewater applied		
4,384,765.33	gallons	
161.48	acre-inches	
2.21	inches/acre	
Total Harvests for the crop		
1	harvests	

Field name: M9 Crop: Corn, Late Silage Plant date: 04/21/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	219.64	60.36	105.18	6,505.92
Process wastewater	105.16	75,115.10	232.75	1,155.25
Fresh water	10.49	8,311.77	24,935.34	1,454.56
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	349.29	83,487.23	25,273.27	9,115.73
Anticipated crop nutrient removal	736.00	174.80	920.00	460.00
Actual crop nutrient removal	261.63	47.29	355.82	0.00
Nutrient balance	87.66	83,439.94	24,917.45	9,115.73
Applied to removed ratio	1.34	1,765.54	71.03	0.00

Fresh water applied		
72,709,400.01	gallons	
2,677.64	acre-inches	
36.68	inches/acre	

Process wastewater applied		
2,079,393.70	gallons	
76.58	acre-inches	
1.05	inches/acre	

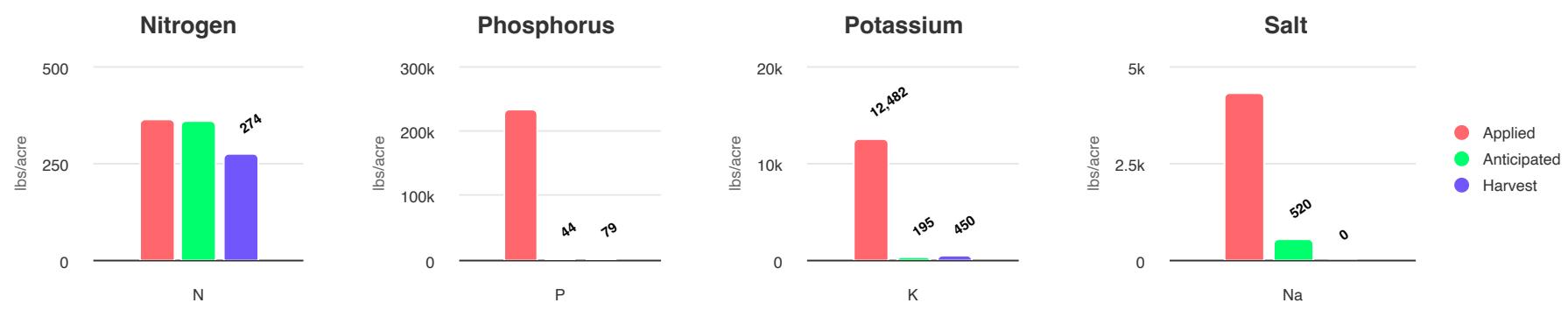
Total Harvests for the crop		
1	harvests	

Field name: M9

Crop: Triticale

Plant date: 11/01/2022

Nutrient budgets in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	137.59	33.06	57.23	534.82
Process wastewater	214.16	227,563.78	446.62	2,550.75
Fresh water	12.18	5,839.76	11,978.53	1,220.56
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	363.93	233,436.60	12,482.38	4,306.13
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	274.13	78.53	450.46	0.00
Nutrient balance	89.80	233,358.07	12,031.92	4,306.13
Applied to removed ratio	1.33	2,972.70	27.71	0.00

Fresh water applied	
51,084,896.17	gallons
1,881.28	acre-inches
25.77	inches/acre
Process wastewater applied	
4,571,098.12	gallons
168.34	acre-inches
2.31	inches/acre
Total Harvests for the crop	
1	harvests

NUTRIENT ANALYSES

A. MANURE ANALYSES

T3090010A

Sample and source description name:		T3090010A									
Sample date:	03/17/2023	Material type:	Corral Solids		Source of analysis:	Lab Analysis		Method of reporting:	As-is		
Moisture:	49.8%										

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	18,230.00	5,010.00	8,730.00	11,090.00	10.00	1,890.00	2,100.00	742.00	8,730.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3090010B

Sample and source description name:		T3090010B									
Sample date:	03/17/2023	Material type:	Corral solids		Source of analysis:	Lab Analysis		Method of reporting:	As-is		
Moisture:	82.2%										

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	17,970.00	2,660.00	7,310.00	5,200.00	3,680.00	1,840.00	2,400.00	402.00	7,310.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3090010C

Sample and source description name:		T3090010C									
Sample date:	03/17/2023	Material type:	Corral solids		Source of analysis:	Lab Analysis		Method of reporting:	As-is		
Moisture:	85.6%										

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	25,800.00	5,640.00	7,040.00	7,860.00	7,190.00	3,400.00	2,600.00	643.00	7,040.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3167056A

Sample and source description name:		T3167056A									
Sample date:	06/12/2023	Material type:	Corral solids		Source of analysis:	Lab Analysis		Method of reporting:	As-is		

Moisture: 40.3%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	19,410.00	4,060.00	16,160.00	10,120.00	4,090.00	2,420.00	2,000.00	717.00	16,160.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3167056B

Sample and source description name: T3167056B

Sample date: 06/12/2023

Material type: Corral solids

Source of analysis:

Lab Analysis

Method of reporting:

As-is

Moisture: 82%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	19,470.00	2,600.00	5,220.00	6,770.00	2,860.00	1,760.00	2,200.00	487.00	5,220.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3167056C

Sample and source description name: T3167056C

Sample date: 06/12/2023

Material type: Corral solids

Source of analysis:

Lab Analysis

Method of reporting:

As-is

Moisture: 84.6%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	24,940.00	7,420.00	9,570.00	11,150.00	7,100.00	2,790.00	2,400.00	797.00	9,570.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3263100A

Sample and source description name: T3263100A

Sample date: 09/15/2023

Material type: Corral solids

Source of analysis:

Lab Analysis

Method of reporting:

As-is

Moisture: 26.8%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	26,800.00	5,920.00	24,530.00	13,450.00	10,360.00	5,470.00	10,290.00	1,081.00	24,530.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

Value	10,250.00	1,250.00	3,350.00	7,860.00	2,350.00	1,430.00	1,820.00	531.00	3,350.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3362043C

Sample and source description name: T3362043C
Sample date: 12/22/2023 Material type: Corral solids Source of analysis: Lab Analysis Method of reporting: As-is
Moisture: 83.8%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	14,630.00	4,080.00	6,270.00	7,150.00	5,790.00	710.00	1,680.00	449.00	6,270.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

B. PROCESS WASTEWATER ANALYSES

T3089021A

Sample and source description name: T3089021A
Sample date: 03/17/2023 Material type: Process wastewater Source of analysis: Lab Analysis pH: 0

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (mmhos/cm)	TDS (mg/L)
Value	397.60	0.00	254.80	0.18	43.70	845.83	143.21	91.35	231.45	0.00	0.00	187.99	234.92	5.32	4,320.00
DL	0.50	0.50	0.50	0.50	0.20	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

T3167001A

Sample and source description name:	T3167001A				
Sample date:	06/15/2023	Material type:	Process wastewater	Source of analysis:	Lab Analysis

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (mmhos/cm)	TDS (mg/L)
Value	442.40	0.00	383.60	0.05	31.60	979.19	116.60	80.01	245.01	0.00	0.00	284.71	337.92	6.74	4,860.00
DL	0.50	0.50	0.50	0.50	0.20	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

T3263064A

Sample and source description name: T3263064A

Sample date:		09/15/2023	Material type:		Process wastewater				Source of analysis:		Lab Analysis			pH:	0
	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (mmhos/cm)	TDS (mg/L)
Value	204.40	0.00	154.00	0.07	44.20	233.09	35.49	51.43	142.84	0.00	0.00	185.41	121.03	3.10	1,960.00
DL	0.50	0.50	0.50	0.50	0.20	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

T3362088A

Sample and source description name: T3362088A

Sample date: 12/22/2023

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (mmhos/cm)	TDS (mg/L)
Value	187.60	0.00	100.80	0.01	27.40	304.82	49.53	40.68	137.62	0.00	0.00	193.96	126.76	2.96	2,440.00
DL	0.50	0.50	0.50	0.50	0.20	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

C. FRESH WATER ANALYSES

Well 2

T3228021A

Sample and source description name:

Sample date: 08/14/2023

T3228021A

Source of analysis: Lab Analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (mmhos/cm)	TDS (mg/L)
Value	4.47	0.00	4.47	18.83	0.16	90.50	0.00	0.00	90.13	43.66	0.55	250.00
DL	0.50	0.50	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

Well 5

T3228021B

Sample and source description name:

Sample date: 08/14/2023

T3228021B

Source of analysis: Lab Analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (mmhos/cm)	TDS (mg/L)
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Value	0.07	0.00	0.07	1.79	0.00	58.36	0.00	0.00	31.23	16.85	0.30	175.00
DL	0.50	0.50	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

Canal - Farmers

T3362072B-185

Sample and source description name: T3362072B-185

Sample date: 12/27/2023

Source of analysis: Lab Analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (mmhos/cm)	TDS (mg/L)
Value	2.80	0.00	0.00	16.59	6.27	23.89	0.00	0.00	22.73	26.87	0.28	100.00
DL	0.50	0.50	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

Main Dairy Well

T3362058A

Sample and source description name: T3362058A

Sample date: 12/27/2023

Source of analysis: Lab Analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (mmhos/cm)	TDS (mg/L)
Value	1.79	0.00	1.79	12.52	0.07	77.08	0.00	0.00	15.41	35.11	0.43	165.00
DL	0.50	0.50	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

Well 4

T3362058B

Sample and source description name:

T3362058B

Sample date: 12/27/2023

Source of analysis:

Lab Analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (mmhos/cm)	TDS (mg/L)
Value	0.73	0.00	0.73	10.78	0.11	77.92	0.00	0.00	60.71	30.67	0.42	185.00
DL	0.50	0.50	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

D. SOIL ANALYSES

No soil analyses entered.

E. PLANT TISSUE ANALYSES

M1 - 04/01/2023: Corn, Late Silage

T3263069A

Sample
description:

T3263069A

Sample date:

09/18/2023

Source of analysis:

Lab Analysis

Method of reporting: Dry

Moisture:

0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	15,000.00	2,520.00	20,740.00	50.00	0.00
DL	100.00	200.00	500.00		0.10

M2 - 04/01/2023: Corn, Late Silage

T3263069B

Sample
description: T3263069B

Sample date: 09/18/2023

Source of analysis: Lab Analysis

Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	13,800.00	2,450.00	22,620.00	60.00	0.00
DL	100.00	200.00	500.00		0.10

M3 - 04/01/2023: Corn, Late Silage

T3263069C

Sample
description: T3263069C

Sample date: 09/18/2023

Source of analysis: Lab Analysis

Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	15,100.00	2,170.00	19,180.00	60.00	0.00
DL	100.00	200.00	500.00		0.10

M4 - 04/01/2023: Corn, Late Silage

T3263069D

Sample
description: T3263069D

Sample date: 09/18/2023

Source of analysis: Lab Analysis

Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	14,000.00	2,650.00	18,630.00	60.00	0.00
DL	100.00	200.00	500.00		0.10

M5 - 04/01/2023: Corn, Late Silage

T3263069E

Sample
description: T3263069E

Sample date: 09/18/2023

Source of analysis: Lab Analysis

Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	14,300.00	2,320.00	17,230.00	80.00	0.00
DL	100.00	200.00	500.00		0.10

M6 - 04/01/2023: Corn, Late Silage

T3263069F

Sample
description: T3263069F

Sample date: 09/18/2023

Source of analysis: Lab Analysis

Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	14,700.00	2,540.00	22,060.00	60.00	0.00
DL	100.00	200.00	500.00		0.10

M7 - 04/01/2023: Corn, Late Silage

T3263070A

Sample
description: T3263070A

Sample date: 09/18/2023

Source of analysis: Lab Analysis

Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	14,200.00	2,550.00	19,770.00	40.00	0.00
DL	100.00	200.00	500.00		0.10

M8 - 04/01/2023: Corn, Late Silage

T3263070B

Sample description: T3263070B
Sample date: 09/18/2023 Source of analysis: Lab Analysis Method of reporting: Dry
Moisture: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	12,400.00	2,270.00	17,960.00	260.00	0.00
DL	100.00	200.00	500.00		0.10

M9 - 04/01/2023: Corn, Late Silage

T3263070C

Sample description: T3263070C
Sample date: 09/18/2023 Source of analysis: Lab Analysis Method of reporting: Dry
Moisture: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	13,500.00	2,440.00	18,360.00	60.00	0.00
DL	100.00	200.00	500.00		0.10

M1 - 10/15/2022: Tricale

T3139023A

Sample
description: T3139023A

Sample date: 05/15/2023

Source of analysis: Lab Analysis

Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	19,290.00	5,350.00	30,920.00	200.00	0.00
DL	100.00	200.00	500.00		0.10

M2 - 10/15/2022: Tricale

T3139023B

Sample
description: T3139023B

Sample date: 05/15/2023

Source of analysis: Lab Analysis

Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	21,400.00	5,300.00	29,760.00	200.00	0.00
DL	100.00	200.00	500.00		0.10

M3 - 10/15/2022: Tricale

T3139023C

Sample
description: T3139023C

Sample date: 05/15/2023

Source of analysis: Lab Analysis

Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	21,530.00	5,860.00	33,660.00	220.00	0.00
DL	100.00	200.00	500.00		0.10

M4 - 10/15/2022: Tricale

T3139023D

Sample
description: T3139023D

Sample date: 05/15/2023

Source of analysis: Lab Analysis

Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	19,200.00	5,500.00	31,550.00	200.00	0.00
DL	100.00	200.00	500.00		0.10

M5 - 10/15/2022: Tricale

T3139023E

Sample
description: T3139023E

Sample date: 05/15/2023

Source of analysis: Lab Analysis

Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	19,560.00	5,210.00	30,120.00	200.00	0.00
DL	100.00	200.00	500.00		0.10

M6 - 10/15/2022: Tricale

T3139023F

Sample
description: T3139023F

Sample date: 05/15/2023

Source of analysis: Lab Analysis

Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	20,200.00	5,550.00	30,910.00	200.00	0.00
DL	100.00	200.00	500.00		0.10

M7 - 10/15/2022: Tricale

T3139024A

Sample
description: T3139024A

Sample date: 05/16/2023

Source of analysis: Lab Analysis

Method of reporting: Dry

Moisture: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	25,620.00	5,100.00	33,930.00	280.00	0.00
DL	100.00	200.00	500.00		0.10

M8 - 11/01/2022: Tritcale

ATS-T3139024A

Sample
description: ATS-T3139024A

Sample date: 05/18/2023

Source of analysis: Lab Analysis

Method of reporting: Dry

Moisture: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	25,620.00	5,100.00	33,930.00	280.00	0.00
DL	100.00	200.00	500.00		0.10

M9 - 11/01/2022: Tritcale

ATS-T3139023D

Sample
description: ATS-T3139023D

Sample date: 05/18/2023 Source of analysis: Lab Analysis Method of reporting: Dry
Moisture: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	19,200.00	5,500.00	31,550.00	200.00	0.00
DL	100.00	200.00	500.00		0.10

F. SUBSURFACE (TILE) DRAINAGE ANALYSES

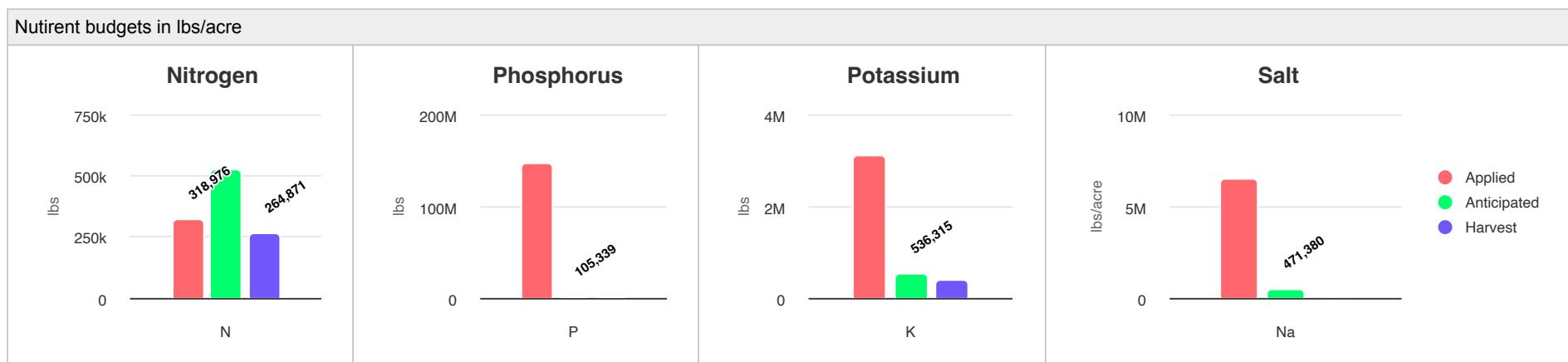
No subsurface (tile) drainage analyses entered.

NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

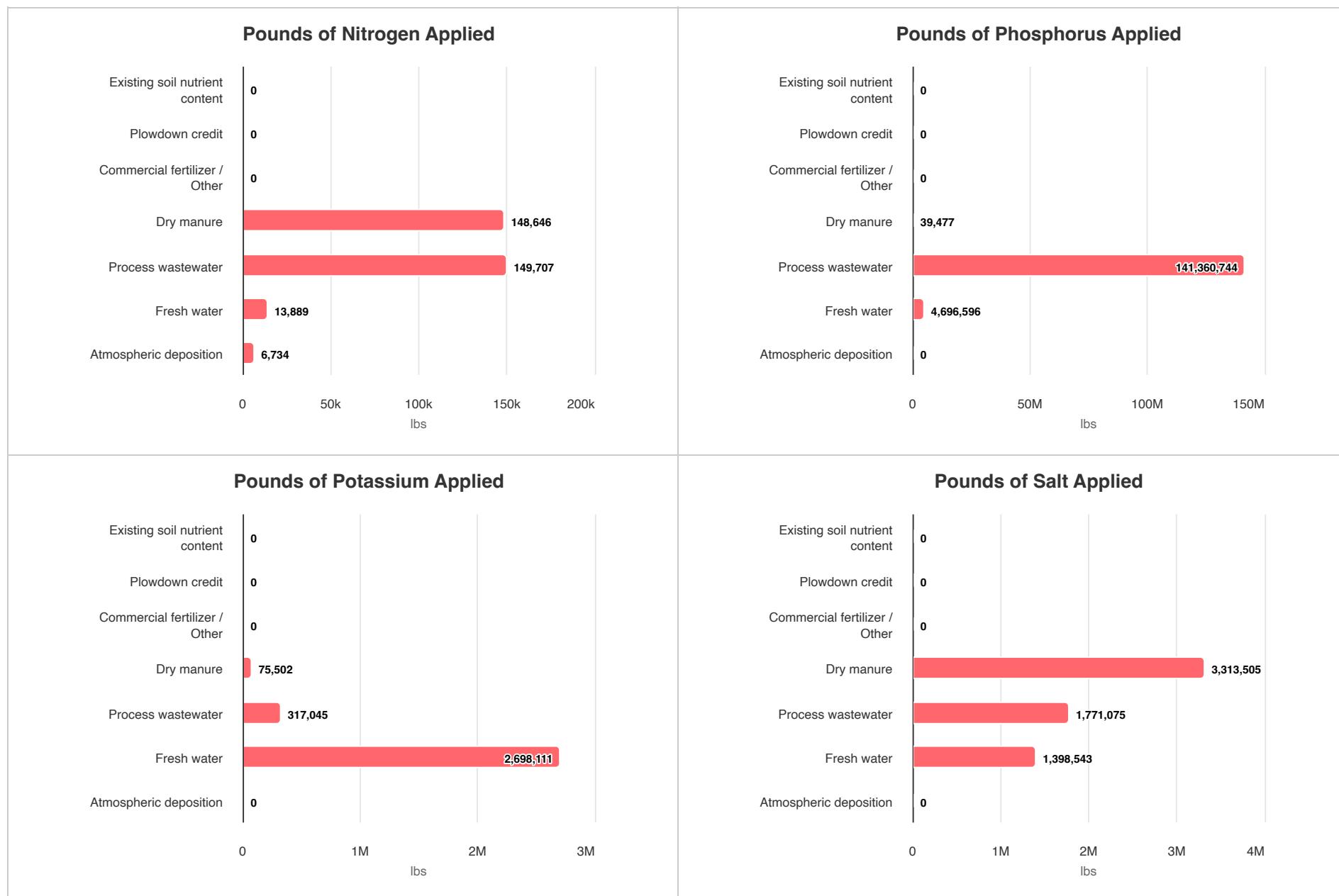
A. SUMMARY OF NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	148,646.16	39,476.76	75,502.46	534.82
Process wastewater	149,706.97	141,360,743.80	317,045.15	2,550.75
Fresh water	13,889.37	4,696,596.41	2,698,111.05	1,220.56
Atmospheric deposition	6,734.00	0.00	0.00	0.00
Total nutrients applied	318,976.50	146,096,816.97	3,090,658.66	6,483,123.11
Anticipated crop nutrient removal	526,598.80	105,339.00	536,315.00	471,380.00
Actual crop nutrient removal	264,870.64	57,091.99	382,228.92	0.00
Nutrient balance	54,105.86	146,039,724.98	2,708,429.74	6,483,123.11
Applied to removed ratio	1.20	2,558.97	8.09	0.00

B. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL



C. POUNDS OF NUTRIENT APPLIED BY MATERIAL TYPE



EXCEPTION REPORTING

A. MANURE, PROCESS WASTEWATER, AND OTHER DAIRY WASTE DISCHARGES

The following is a summary of all manure and process wastewater discharges from the production area to surface water or to land areas (land application areas or otherwise) when not in accordance with the facility's Nutrient Management Plan.

No manure or process wastewater discharges occurred during the reporting period.

B. STORM WATER DISCHARGES

The following is a summary of all storm water discharges from the production area to surface water during the reporting period when not in accordance with the facility's Nutrient Management Plan.

No stormwater discharges occurred during the reporting period.

C. LAND APPLICATION AREA TO SURFACE WATER DISCHARGES

The following is a summary of all discharges from the land application area to surface water that have occurred during the reporting period when not in accordance with the facility's Nutrient Management Plan.

No land application area to surface water discharges occurred during the reporting period.

NUTRIENT MANAGEMENT PLAN AND EXPORT AGREEMENT STATEMENTS

A. NUTRIENT MANAGEMENT PLAN STATEMENTS

Was the facility's NMP updated in the reporting period?

Yes

Was the facility's NMP developed by a certified nutrient management planner (specialist) as specified in Attachment C of the General Order?

Yes

Was the facility's NMP approved by a certified nutrient management planner (specialist) as specified in Attachment C of the General Order?

Yes

B. EXPORT AGREEMENT STATEMENT

Are there any written agreements with third parties to receive manure or process wastewater that are new or were revised within the reporting period?

No

ADDITIONAL NOTES

A. NOTES

Well Specific Notes

2023 Non Op Wells: Well 6

CERTIFICATION

A. OWNER AND/OR OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



SIGNATURE OF OWNER OF FACILITY

Brodie McClain

PRINT OR TYPE NAME

6/29/2024

DATE



SIGNATURE OF OPERATOR OF FACILITY

Brodie McClain

PRINT OR TYPE NAME

6/29/2024

DATE

REQUIRED ATTACHMENTS

A. REQUIRED ATTACHMENTS

The following lists the required documents that should be attached to the Annual Report when submitted.

Annual Dairy Facility Assessment

Provide an Annual Dairy Facility Assessment (an update to the Preliminary Dairy Facility Assessment in Attachment A) for each reporting period. On the PDFA Final page, click on the ADFA Report button to generate an ADFA report after updating information as needed.

Manure/Process Wastewater Tracking Manifests

Provide copies of all manure/process wastewater tracking manifests for the reporting period, signed by both the owner/operator and the hauler.

Corrective Actions Documents

Provide records documenting any corrective actions taken to correct deficiencies noted as a result of the inspections required in the Monitoring Requirements of the General Order. Deficiencies not corrected in 30 days must be accompanied by an explanation of the factors preventing immediate correction.

Discharge Maps

Provide map(s) showing the discharge and sample locations for each discharge or release of waste to land areas (land application areas or otherwise) or surface water.

Discharge Lab Reports

Provide copies of laboratory analyses of all discharges (manure, process wastewater, or tailwater), surface water (upstream and downstream of a discharge), and storm water, including chain-of-custody forms and laboratory quality assurance/quality control results.

Groundwater Monitoring

Dischargers that monitor supply wells or subsurface (tile) drainage systems, or that have monitoring well systems must submit monitoring results as directed in the General Order, Groundwater Reporting Section starting on page MRP-13.

Storm Water Monitoring

Dischargers that are required to monitor storm water more frequently than required in the General Order must submit monitoring results as directed in the General Order, Storm Water Reporting Section on page MRP-14.

Solid/Liquid Manure Tracking Manifest

Waste Generator Information:

Name: Brodie McClain
Facility Name: McMoo Dairy
Facility Address: 11663 Buena Vista Rd
Facility City/State: Bakersfield, CA 93311

Contact:

Name: Brodie McClain
Number: (661) 587-1154

If amount hauled / transferred is liquid, then a "Waste Water Agreement" is required in compliance with Land Application Specification C.2 of the General Order R5-2007-0035.

Does the operator have an agreement, and is a Waste Water Agreement on file with the RWQCD? NO

I declare under the penalty of law that I personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information., including the possibility of a fine and imprisonment for knowing violations.

Manure Hauler / Processor Information:

Name: Watts Spreading
Facility Address: 13214 Eberle Rd
Facility City/State: Bakerfield, CA 93311

Contact:

Name: Hayley Watts
Number: (661) 797-3358

Manure Destination Broker**Destination Information:**

Name: Watts Spreading
Facility Address: 13214 Eberle Rd
Facility City/State: Bakerfield, CA

Contact:

Name: Jeremy
Number: (661) 797-3358

Signature of Owner:**Date:**

12/30/2023

Signature of Hauler:**Date:**

12/30/2023

Dates Hauled / Transferred	Amount Hauled / Transferred	Units	Moisture %
Apr 1, 2023 - Apr, 30 2023	3,167	ton	70 %
Jun 1, 2023 - Jun, 30 2023	7,382	ton	68 %
Aug 1, 2023 - Aug, 31 2023	3,497	ton	70 %
Oct 1, 2023 - Oct, 31 2023	3,375	ton	70 %
Total	17,421		



Denele Analytical, Inc.

865 South Kilroy Avenue Turlock, CA 95380
Phone (209) 634-9055 - Fax (209) 634-9057
www.denelelabs.com

40 N. East Street, Woodland, CA 95776
Phone (530) 666-9056 - Fax (530) 666-9058

Compliance Analysis Report

Customer

McMoo Dairy
17318 LEGEND OAKS LANE
Bakersfield, CA 93314

Grower**Consultant:**

Icon Ag
9530 Hageman Rd, Ste B. #292
Bakersfield, CA 93312

PURCHASE ORDER:

RECEIVED DATE: 12/28/23 12:00 PM
SUBMITTED BY: Courier
ANALYZED DATE: 1/3/24

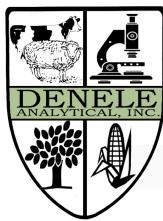
Boron (B)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Main Dairy Well	T3362058A	Boron (B)	EPA 200.7	0.200	ppm

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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The warranty of Denele Analytical is limited to the accuracy of the analyses of the samples as received. Denele Analytical assumes no responsibility for which the customer uses our test results, nor liability for any other warranties, express or implied. These terms and conditions shall supercede any conflicting terms and conditions submitted on customer purchase orders or other forms submitted for work.



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Compliance Analysis Report

Customer

McMoo Dairy
17318 LEGEND OAKS LANE
Bakersfield, CA 93314

Grower**Consultant:**

Icon Ag
9530 Hageman Rd, Ste B. #292
Bakersfield, CA 93312

PURCHASE ORDER:

RECEIVED DATE: 12/28/23 12:00 PM
SUBMITTED BY: Courier
ANALYZED DATE: 1/2/24

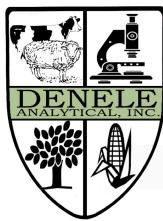
Irrigation /Ground Water (H14)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Main Dairy Well	T3362058A	Electrical Conductivity (EC)	EPA 120.1 and SM 2320B-2011	0.432	mmhos/cm
		Bicarbonate Alkalinity (ALK-B)	SM 2320B-2011	84.0	mg/L
		Carbonate Alkalinity (Carb)	SM 2320B-2011	< 2.00	mg/L
		Sulfate (SO4)	EPA 375.2	15.4	mg/L
		Sodium (Na)	EPA 200.7	77.1	mg/L
		Ammonia Nitrogen (NH3-N)	SM 4500-NH3 D,C	< 0.500	mg/L
		Magnesium (Mg)	EPA 200.7	< 0.500	mg/L
		Nitrate Nitrogen (NO3-N)	EPA 353.2	1.79	mg/L
		Total Dissolved Solids (TDS)	SM 2540 C-1997 and EPA 200.7	165	mg/L
		Calcium (Ca)	EPA 200.7	12.5	mg/L
		Chloride (Cl)	SM 4500-Cl D-2011	35.1	mg/L
		Soluble Salts (SALT-SOL)	Calculation	277	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	Sample mg/L	Dup mg/L	RPD %
Ammonia Nitrogen (NH3-N)	90.2	97.6 (T3362094B)	99.4 (T3362094B)			1.82
Calcium (Ca)	102	117 (T3361018C)	119 (T3361018C)			2.03
Chloride (Cl)	102	106 (T3361018C)	105 (T3361018C)			1.12
Magnesium (Mg)	102	114 (T3361018C)	117 (T3361018C)			2.48
Nitrate Nitrogen (NO3-N)	102	107 (T3361018C)	104 (T3361018C)			2.48
Sodium (Na)	90.4	119 (T3361018C)	118 (T3361018C)			1.43
Sulfate (SO4)	104	112 (T3361018C)	109 (T3361018C)			2.42
Total Dissolved Solids (TDS)	97.0			235 (T3362060A)	240 (Dup)	2.11

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www.denelelabs.com

40 N. East Street, Woodland, CA 95776
Phone (530) 666-9056 - Fax (530) 666-9058

Compliance Analysis Report

Customer

McMoo Dairy
17318 LEGEND OAKS LANE
Bakersfield, CA 93314

Grower**Consultant:**

Icon Ag
9530 Hageman Rd, Ste B. #292
Bakersfield, CA 93312

PURCHASE ORDER:

RECEIVED DATE: 12/28/23 12:00 PM
SUBMITTED BY: Courier
ANALYZED DATE: 1/8/24

pH (pH)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Main Dairy Well	T3362058A	pH (pH)	SM4500-H+ B-2000	7.9	S.U.

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
----------------------------	-------	------	-------	-------

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Compliance Analysis Report

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McMoo Dairy
17318 LEGEND OAKS LANE
Bakersfield, CA 93314

Grower**Consultant:**

Icon Ag
9530 Hageman Rd, Ste B. #292
Bakersfield, CA 93312

PURCHASE ORDER:

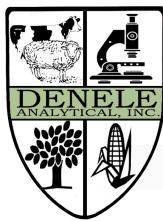
RECEIVED DATE: 12/28/23 12:00 PM
SUBMITTED BY: Courier
ANALYZED DATE: 1/4/24

Total Nitrogen (TN)
SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Main Dairy Well	T3362058A	Total Nitrogen (TN)	SM 4500-NH3 D,C	1.79	%

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %

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Compliance Analysis Report

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McMoo Dairy
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Bakersfield, CA 93314

Grower**Consultant:**

Icon Ag
9530 Hageman Rd, Ste B. #292
Bakersfield, CA 93312

PURCHASE ORDER:

RECEIVED DATE: 12/28/23 12:00 PM
SUBMITTED BY: Courier
ANALYZED DATE: 1/3/24

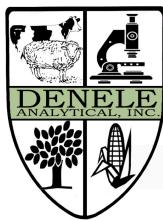
Boron (B)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Well 4	T3362058B	Boron (B)	EPA 200.7	0.190	ppm

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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Compliance Analysis Report

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McMoo Dairy
17318 LEGEND OAKS LANE
Bakersfield, CA 93314

Grower**Consultant:**

Icon Ag
9530 Hageman Rd, Ste B. #292
Bakersfield, CA 93312

PURCHASE ORDER:

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ANALYZED DATE: 1/2/24

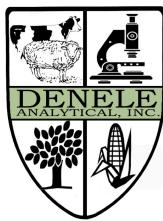
Irrigation /Ground Water (H14)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Well 4	T3362058B	Electrical Conductivity (EC)	EPA 120.1 and SM 2320B-2011	0.419	mmhos/cm
		Bicarbonate Alkalinity (ALK-B)	SM 2320B-2011	90.0	mg/L
		Carbonate Alkalinity (Carb)	SM 2320B-2011	< 2.00	mg/L
		Sulfate (SO4)	EPA 375.2	60.7	mg/L
		Sodium (Na)	EPA 200.7	77.9	mg/L
		Ammonia Nitrogen (NH3-N)	SM 4500-NH3 D,C	< 0.500	mg/L
		Magnesium (Mg)	EPA 200.7	< 0.500	mg/L
		Nitrate Nitrogen (NO3-N)	EPA 353.2	0.734	mg/L
		Total Dissolved Solids (TDS)	SM 2540 C-1997 and EPA 200.7	185	mg/L
		Calcium (Ca)	EPA 200.7	10.8	mg/L
		Chloride (Cl)	SM 4500-Cl D-2011	30.7	mg/L
		Soluble Salts (SALT-SOL)	Calculation	268	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	Sample mg/L	Dup mg/L	RPD %
Ammonia Nitrogen (NH3-N)	90.2	97.6 (T3362094B)	99.4 (T3362094B)			1.82
Calcium (Ca)	102	117 (T3361018C)	119 (T3361018C)			2.03
Chloride (Cl)	102	106 (T3361018C)	105 (T3361018C)			1.12
Magnesium (Mg)	102	114 (T3361018C)	117 (T3361018C)			2.48
Nitrate Nitrogen (NO3-N)	102	107 (T3361018C)	104 (T3361018C)			2.48
Sodium (Na)	90.4	119 (T3361018C)	118 (T3361018C)			1.43
Sulfate (SO4)	104	112 (T3361018C)	109 (T3361018C)			2.42
Total Dissolved Solids (TDS)	97.0			235 (T3362060A)	240 (Dup)	2.11

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Compliance Analysis Report

Customer

McMoo Dairy
17318 LEGEND OAKS LANE
Bakersfield, CA 93314

Grower**Consultant:**

Icon Ag
9530 Hageman Rd, Ste B. #292
Bakersfield, CA 93312

PURCHASE ORDER:

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ANALYZED DATE: 1/2/24

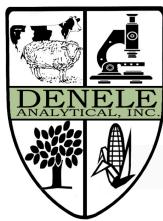
Icon Sampling Fee (ISF)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Well 4	T3362058B	Icon Sampling Fee (ISF)	N/A	0.000	N/A

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %

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Compliance Analysis Report

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McMoo Dairy
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Grower**Consultant:**

Icon Ag
9530 Hageman Rd, Ste B. #292
Bakersfield, CA 93312

PURCHASE ORDER:

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SUBMITTED BY: Courier
ANALYZED DATE: 1/8/24

pH (pH)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Well 4	T3362058B	pH (pH)	SM4500-H+ B-2000	8.0	S.U.

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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Bakersfield, CA 93312

PURCHASE ORDER:

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ANALYZED DATE: 1/4/24

Total Nitrogen (TN)
SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Well 4	T3362058B	Total Nitrogen (TN)	SM 4500-NH3 D,C	< 1.50	%

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %

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Irrigation / Ground / Tile Water



9530 Hageman Rd. Ste B, #292 Bakersfield, CA 93312

Dominic Patino

(661) 333-7776

(661) 215-5168

dpatino@iconaginc.com

Date

12/27/23

Sampled By

Dominic

Lab Name

Denell

McMoo Dairy

Ranch: Home Ranch

***Required Field Measurement

NH4-N Check here if performed

Analysis Types

W5 - Ag Suitability (Non-Compliance)

W2 W1 + Ca, Mg, Na, Bicarb, SO4, Cl, B

W4 - pH, SpCon, TDS, Ca, CO3, Na, K, Mg, SO4, Cl, B (Reg 3 comp)

W1 - EC, pH, NO3-N, TN, TDS, NH4-N*** (Reg 5 comp)

W3 - W2 + TP, NH4-N, Carb (tile drain)

Weather Conditions

SH - Sunny & Hot

CC - Cold & Cloudy

SW - Sunny & Warm

CCL - Cold & Clear

R - Rainy

Location:

1.	Location:			
Analysis	Weather	Temp (°F)	# of Bags/Bottles	CHAIN
W2	SW	56°	1	23-O1

McMoo Dairy

Main Dairy Well W

Ranch: Home Ranch Date: 12-27-23 am

IW 35.249304, -119.132573

Location:

2.	Location:			
Analysis	Weather	Temp (°F)	# of Bags/Bottles	CHAIN
W2	SW	56°	1	23-O1

McMoo Dairy

Well 4 W

Ranch: Home Ranch Date: 12-27-23 am

IW 35.245302, -119.128547

Location:

3.	Location:			
Analysis	Weather	Temp (°F)	# of Bags/Bottles	CHAIN

Place CHAIN Label Here

Place additional labels on sample bags/bottles

Location:

4.	Location:			
Analysis	Weather	Temp (°F)	# of Bags/Bottles	CHAIN

Place CHAIN Label Here

Place additional labels on sample bags/bottles

Location:

5.	Location:			
Analysis	Weather	Temp (°F)	# of Bags/Bottles	CHAIN

Place CHAIN Label Here

Place additional labels on sample bags/bottles

Location:

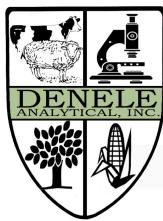
6.	Location:			
Analysis	Weather	Temp (°F)	# of Bags/Bottles	CHAIN

Place CHAIN Label Here

Place additional labels on sample bags/bottles

Chain of Custody Recording Log

	Signature	Company	Received Date/Time	Relinquished Date/Time	Laboratory Use Only
1st				12/28 10:21	Logged in By:
2nd				12-28-23 10:12	Laboratory #
3rd					
4th		Denell	12-28-23 10:00		T3362058



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Compliance Analysis Report

Customer

McMoo Dairy
17318 LEGEND OAKS LANE
Bakersfield, CA 93314

Grower**Consultant:**

Icon Ag
9530 Hageman Rd, Ste B. #292
Bakersfield, CA 93312

PURCHASE ORDER:

RECEIVED DATE: 8/16/23 10:00 AM
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ANALYZED DATE: 8/18/23

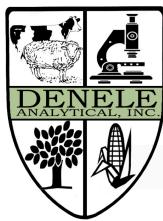
Boron (B)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Well 2	T3228021A	Boron (B)	EPA 200.7	0.196	ppm

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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Bakersfield, CA 93312

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ANALYZED DATE: 8/18/23

Irrigation /Ground Water (H14)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Well 2	T3228021A	Electrical Conductivity (EC)	EPA 120.1 and SM 2320B-2011	0.550 82.0	mmhos/cm mg/L
		Bicarbonate Alkalinity (ALK-B)	SM 2320B-2011	< 2.00	mg/L
		Carbonate Alkalinity (Carb)	SM 2320B-2011	90.1	mg/L
		Sulfate (SO4)	EPA 375.2	90.5	mg/L
		Sodium (Na)	EPA 200.7	< 0.500	mg/L
		Ammonia Nitrogen (NH3-N)	SM 4500-NH3 D,C	4.47	mg/L
		Magnesium (Mg)	EPA 200.7	< 0.500	mg/L
		Nitrate Nitrogen (NO3-N)	EPA 353.2	250	mg/L
		Total Dissolved Solids (TDS)	SM 2540 C-1997 and EPA 200.7	18.8	mg/L
		Calcium (Ca)	SM 4500-CI D-2011	43.7	mg/L
		Chloride (Cl)	Calculation	352	mg/L
		Soluble Salts (SALT-SOL)			

Laboratory Quality Control	LCS %	MS %	MSD %	Sample mg/L	Dup mg/L	RPD %
Ammonia Nitrogen (NH3-N)	97.8	100 (T3228016A)	102 (T3228016A)			1.78
Calcium (Ca)	92.3	90.9 (T3228021A)	93.1 (T3228021A)			2.36
Chloride (Cl)	103	96.4 (T3228016A)	96.9 (T3228016A)			0.559
Magnesium (Mg)	92.1	91.3 (T3228021A)	95.2 (T3228021A)			4.24
Nitrate Nitrogen (NO3-N)	105	100 (T3228016A)	96.7 (T3228016A)			3.70
Sodium (Na)	99.4	78.9 (T3228021A)	85.1 (T3228021A)			7.63
Sulfate (SO4)	103	114 (T3228016A)	107 (T3228016A)	410 (T3228024B)	435 (Dup)	5.66
Total Dissolved Solids (TDS)	109					5.92

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Compliance Analysis Report

Customer

McMoo Dairy
17318 LEGEND OAKS LANE
Bakersfield, CA 93314

Grower**Consultant:**

Icon Ag
9530 Hageman Rd, Ste B. #292
Bakersfield, CA 93312

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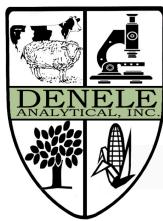
pH (pH)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Well 2	T3228021A	pH (pH)	SM4500-H+ B-2000	7.9	S.U.

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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Bakersfield, CA 93314

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9530 Hageman Rd, Ste B. #292
Bakersfield, CA 93312

PURCHASE ORDER:

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ANALYZED DATE: 8/22/23

Total Nitrogen (TN)
SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Well 2	T3228021A	Total Nitrogen (TN)	SM 4500-NH3 D,C	4.47	%

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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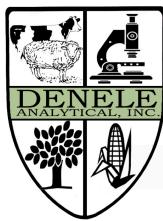
Boron (B)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Well 5	T3228021B	Boron (B)	EPA 200.7	0.170	ppm

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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SUBMITTED BY: Courier
ANALYZED DATE: 8/17/23

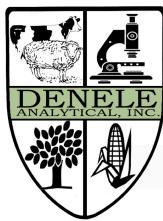
Irrigation /Ground Water (H14)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Well 5	T3228021B	Electrical Conductivity (EC)	EPA 120.1 and SM 2320B-2011	0.295	mmhos/cm
		Bicarbonate Alkalinity (ALK-B)	SM 2320B-2011	72.0	mg/L
		Carbonate Alkalinity (Carb)	SM 2320B-2011	4.00	mg/L
		Sulfate (SO4)	EPA 375.2	31.2	mg/L
		Sodium (Na)	EPA 200.7	58.4	mg/L
		Ammonia Nitrogen (NH3-N)	SM 4500-NH3 D,C	< 0.500	mg/L
		Magnesium (Mg)	EPA 200.7	< 0.500	mg/L
		Nitrate Nitrogen (NO3-N)	EPA 353.2	< 0.140	mg/L
		Total Dissolved Solids (TDS)	SM 2540 C-1997 and EPA 200.7	175	mg/L
		Calcium (Ca)	EPA 200.7	1.79	mg/L
		Chloride (Cl)	SM 4500-Cl D-2011	16.9	mg/L
		Soluble Salts (SALT-SOL)	Calculation	189	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	Sample mg/L	Dup mg/L	RPD %
Ammonia Nitrogen (NH3-N)	97.8	100 (T3228016A)	102 (T3228016A)			1.78
Calcium (Ca)	95.3	103 (T3228029B)	112 (T3228029B)			8.90
Chloride (Cl)	103	96.4 (T3228016A)	96.9 (T3228016A)			0.559
Magnesium (Mg)	95.1	94.5 (T3228029B)	105 (T3228029B)			10.5
Nitrate Nitrogen (NO3-N)	105	100 (T3228016A)	96.7 (T3228016A)			3.70
Sodium (Na)	98.5	102 (T3228029B)	117 (T3228029B)			13.5
Sulfate (SO4)	103	114 (T3228016A)	107 (T3228016A)	410 (T3228024B)	435 (Dup)	5.66
Total Dissolved Solids (TDS)	109					5.92

The warranty of Denele Analytical is limited to the accuracy of the analyses of the samples as received. Denele Analytical assumes no responsibility for which the customer uses our test results, nor liability for any other warranties, express or implied. These terms and conditions shall supercede any conflicting terms and conditions submitted on customer purchase orders or other forms submitted for work.



Denele Analytical, Inc.

865 South Kilroy Avenue Turlock, CA 95380
Phone (209) 634-9055 - Fax (209) 634-9057
www.denelelabs.com

40 N. East Street, Woodland, CA 95776
Phone (530) 666-9056 - Fax (530) 666-9058

Compliance Analysis Report

Customer

McMoo Dairy
17318 LEGEND OAKS LANE
Bakersfield, CA 93314

Grower**Consultant:**

Icon Ag
9530 Hageman Rd, Ste B. #292
Bakersfield, CA 93312

PURCHASE ORDER:

RECEIVED DATE: 8/16/23 10:00 AM
SUBMITTED BY: Courier
ANALYZED DATE: 8/16/23

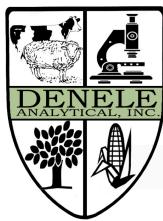
Icon Sampling Fee (ISF)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Well 5	T3228021B	Icon Sampling Fee (ISF)	1664B	0.000	N/A

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %

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Compliance Analysis Report

Customer

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17318 LEGEND OAKS LANE
Bakersfield, CA 93314

Grower**Consultant:**

Icon Ag
9530 Hageman Rd, Ste B. #292
Bakersfield, CA 93312

PURCHASE ORDER:

RECEIVED DATE: 8/16/23 10:00 AM
SUBMITTED BY: Courier
ANALYZED DATE: 8/18/23

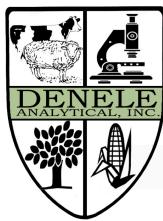
pH (pH)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Well 5	T3228021B	pH (pH)	SM4500-H+ B-2000	8.1	S.U.

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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Compliance Analysis Report

Customer

McMoo Dairy
17318 LEGEND OAKS LANE
Bakersfield, CA 93314

Grower**Consultant:**

Icon Ag
9530 Hageman Rd, Ste B. #292
Bakersfield, CA 93312

PURCHASE ORDER:

RECEIVED DATE: 8/16/23 10:00 AM
SUBMITTED BY: Courier
ANALYZED DATE: 8/22/23

Total Nitrogen (TN)
SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Well 5	T3228021B	Total Nitrogen (TN)	SM 4500-NH3 D,C	< 1.50	%

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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Irrigation / Ground / Tile Water



9530 Hageman Rd. Ste B, #292 Bakersfield, CA 93312

Dominic Patino

(661) 333-7776

(661) 215-5168

dpatino@iconaginc.com

Date

8-14-2023

Sampled By

TONY

Lab Name

Denelle

McMoo Dairy

Ranch: Home Ranch

***Required Field Measurement

NH4-N Check here if performed

Analysis Types

W5 - Ag Suitability (Non-Compliance)

W2 - W1 + Ca, Mg, Na, Bicard, SO4, Cl, B

W4 - pH, SpCon, TDS, Ca, CO3, Ca, Mg, Na, K, SO4, Cl, B (Reg 3 comp)

W1 - EC, pH, NO3-N, TN, TDS, NH4-N*** (Reg 5 comp)

W3 - W2 + TP, NH4-N, Carb (tile drain)

Weather Conditions

SH - Sunny & Hot

CC - Cold & Cloudy

SW - Sunny & Warm

CCL - Cold & Clear

R - Rainy

Location:

1.

Analysis	Weather	Temp (°F)	# of Bags/Bottles
W2	SH	84	1

CHAIN



23-01

McMoo Dairy

Well 2 W

Ranch: Home Ranch Date: 8-14-2023 am

[IW] 35.251391, -119.134222

Location:

2.

Analysis	Weather	Temp (°F)	# of Bags/Bottles
W2	SH	84	1

CHAIN



23-01

McMoo Dairy

Well 5 W

Ranch: Home Ranch Date: 8-14-2023 am

[IW] 35.245292, -119.145288

Location:

3.

Analysis	Weather	Temp (°F)	# of Bags/Bottles

Place CHAIN Label Here

Place additional labels on sample bags/bottles

Location:

4.

Analysis	Weather	Temp (°F)	# of Bags/Bottles

Place CHAIN Label Here

Place additional labels on sample bags/bottles

Location:

5.

Analysis	Weather	Temp (°F)	# of Bags/Bottles

Place CHAIN Label Here

Place additional labels on sample bags/bottles

Location:

6.

Analysis	Weather	Temp (°F)	# of Bags/Bottles

Place CHAIN Label Here

Place additional labels on sample bags/bottles

Chain of Custody Recording Log

	Signature	Company	Received Date/Time	Relinquished Date/Time	Laboratory Use Only
1st	Antonio Mera	Icon Ag		8-15-2023 7:00 AM	Logged in By: Laboratory #
2nd					
3rd	Denelle		8-16-2023 10:00		
4th					T3228021