

DAIRY FACILITY INFORMATION

A. NAME OF DAIRY OR BUSINESS OPERATING THE DAIRY:AJB Ranch Dairy

Physical address of dairy:

2874 Stockdale Hwy.BakersfieldKern93312

Number and Street

City

County

Zip Code

Street and nearest cross street (if no address): _____

Date facility was originally placed in operation:

12-31-2013

Regional Water Quality Control Board Basin Plan designation:

Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

0103-0270-0007-0000 0104-0260-0009-0000 0104-0260-0015-0000 0104-0270-0001-0000 0104-0270-0006-0000**B. OPERATORS**

AJ Bos

Operator Name:

AJ Bos

Telephone no.:

(661) 396-9600

Landline

Cellular

2874 Stockdale Hwy.BakersfieldKern93312

Mailing Address Number and Street

City

County

Zip Code

C. OWNERS

AJ Bos

Owner Name:

AJ Bos

Telephone no.:

(661) 396-9600

Landline

Cellular

2874 Stockdale Hwy.BakersfieldKern93312

Mailing Address Number and Street

City

County

Zip Code

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	0	983	788	772	0
Number under roof	3,995	534	0	0	0	0
Maxiumu number	4,000	543	1,000	800	800	0
Average number	3,995	534	983	788	772	0
Average live weight (lbs)	1400	1450	1100	300		

Predominant milk cow breed: Holsteins
Average Milk Production: 78 pounds per cow per day

B. MANURE GENERATED

Total manure excreted by the herd: 133,754.59 tons per reporting period
Total nitrogen from manure: 1,693,856.94 lbs per reporting period After ammonia losses (30% loss applied): 1,185,699.86 lbs per reporting period
Total phosphorus from manure: 279,940.74 lbs per reporting period
Total potassium from manure: 786,077.08 lbs per reporting period
Total salt from manure: 2,003,839.05 lbs per reporting period

C. PROCESS WASTEWATER GENERATED

Process wastewater generated: 55,324,631.18 gallons
Total nitrogen generated: 73,160.56 lbs
Total phosphorus generated: 211,342,999.89 lbs
Total potassium generated: 128,724.27 lbs
Total salt generated: 860,343.00 lbs

	55,324,631.18 gallons applied
+	0 gallons exported
-	0 gallons imported
=	55,324,631.18 gallons generated

D. FRESH WATER SOURCES

Source Description	Type
103W	Ground Water
4	Ground Water
5E	Ground Water
7E	Ground Water
AJB Filter	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 (%)
03/06/2023	Separator solids	4,267 tons	as-is	65.3	25,100.00	6,870.00	27,220.00	34.00
03/09/2023	Separator solids	1,633 tons	as-is	69.1	25,100.00	6,870.00	27,220.00	34.00
04/18/2023	Separator solids	6,920 tons	as-is	65	27,740.00	7,420.00	15,310.00	38.00
07/10/2023	Separator solids	10,075 tons	as-is	64.2	21,830.00	6,880.00	19,730.00	34.00
10/08/2023	Separator solids	8,219 tons	as-is	65.3	25,200.00	7,270.00	20,310.00	26.00

No process wastewater nutrient exports entered.

Material type	N (lbs)	P (lbs)	K (lbs)	TDS (%)
Dry Manure	1,534,213.70	441,895.06	1,264,501.68	20,396,080.00
Process wastewater	0.00	0.00	0.00	0.00
Total exports for all materials	1,534,213.70	441,895.06	1,264,501.68	20,396,080.00

APPLICATION AREA

A. LIST OF LAND APPLICATION AREAS

Field name	Controlled acres	Cropable acres	Total harvests	Type of waste applied	Parcel number
1B	69.56	67.00	1	BOTH	0104-0270-0006-0000
1A	17.31	18.00	1	BOTH	0104-0260-0009-0000
2B	67.83	67.00	1	BOTH	0104-0270-0006-0000
2A	17.02	18.00	1	BOTH	0104-0260-0015-0000
3	78.74	78.00	8	NONE	0104-0270-0001-0000
4	77.53	78.00	1	BOTH	0104-0270-0001-0000
5	77.33	78.00	1	BOTH	0104-0270-0001-0000
6	75.90	78.00	2	BOTH	0104-0270-0001-0000
7	137.59	140.00	1	BOTH	0103-0270-0007-0000
8	33.83	30.00	2	BOTH	0104-0270-0006-0000
Totals for areas that were used for application	652.64	652.00	19.00		
Totals for areas that were not used for application	0.64	0.64			
Land application area totals	652.64	652.64	19.00		

B. CROPS AND HARVESTS**1B**Field Name: 1B**03/25/2023: Corn, Early Silage**Crop: Corn, Early Silage Acres planted: 67 Plant date: 03/25/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
07/20/2023	2,177.23 ton	As-is		0.00	4,760.00	903.00	6,268.50	24.50	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	1,020.00	180.00	1,200.00	600.00
Total actual harvest content	32.50	309.36	58.69	407.40	0.00

Field Name: 1A

03/25/2023: Corn, Early Silage

Crop: Corn, Early Silage Acres planted: 18 Plant date: 03/25/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
07/20/2023	584.93 ton	As-is		0.00	4,935.00	903.00	8,064.00	45.50	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	1,020.00	180.00	1,200.00	600.00
Total actual harvest content	32.50	320.74	58.69	524.10	0.00

Field Name: 2B

11/10/2022: Triticale

Crop: Triticale Acres planted: 67 Plant date: 11/10/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/16/2023	1,512.59 ton	As-is		0.00	5,832.00	1,378.80	7,286.40	165.60	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	22.58	263.33	62.26	329.00	0.00

Field Name: 2A**11/10/2022: Triticale**Crop: Triticale Acres planted: 18 Plant date: 11/10/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/16/2023	406.37 ton	As-is		0.00	6,073.20	1,724.40	9,507.60	216.00	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	22.58	274.22	77.86	429.29	0.00

Field Name: 2B

05/01/2023: Corn Silage

Crop: Corn Silage Acres planted: 67 Plant date: 05/01/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/19/2023	1,728.60 ton	As-is		0.00	4,690.00	945.00	9,625.00	14.00	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	1,008.00	212.80	1,120.00	560.00
Total actual harvest content	25.80	242.00	48.76	496.65	0.00

Field Name: 2A

05/01/2023: Corn Silage

Crop: Corn Silage Acres planted: 18 Plant date: 05/01/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/19/2023	464.40 ton	As-is		0.00	4,865.00	913.50	8,914.50	17.50	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	1,008.00	212.80	1,120.00	560.00
Total actual harvest content	25.80	251.03	47.14	459.99	0.00

Field Name: 3

10/15/2020: Alfalfa

Crop: Alfalfa Acres planted: 78 Plant date: 10/15/2020

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
04/10/2023	154.99 ton	As-is		0.00	20,361.90	1,614.60	15,614.70	496.80	0.00
05/09/2023	131.04 ton	As-is		0.00	20,361.90	1,614.60	15,614.70	496.80	0.00
06/04/2023	95.16 ton	As-is		0.00	20,361.90	1,614.60	15,614.70	496.80	0.00
07/05/2023	116.14 ton	As-is		0.00	20,361.90	1,614.60	15,614.70	496.80	0.00
07/29/2023	87.75 ton	As-is		0.00	20,361.90	1,614.60	15,614.70	496.80	0.00
08/30/2023	134.39 ton	As-is		0.00	20,361.90	1,614.60	15,614.70	496.80	0.00
09/25/2023	139.31 ton	As-is		0.00	20,361.90	1,614.60	15,614.70	496.80	0.00
10/26/2023	121.68 ton	As-is		0.00	20,361.90	1,614.60	15,614.70	496.80	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	12.00	720.00	64.80	504.00	240.00
Total actual harvest content	12.57	511.90	40.59	392.55	0.00

Field Name: 4

03/25/2023: Corn, Early Silage

Crop: Corn, Early Silage Acres planted: 78 Plant date: 03/25/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
07/20/2023	2,533.13 ton	As-is		0.00	3,325.00	906.50	5,754.00	35.00	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	1,020.00	180.00	1,200.00	600.00
Total actual harvest content	32.48	215.97	58.88	373.73	0.00

Field Name: 5

11/10/2022: Triticale

Crop: Triticale Acres planted: 78 Plant date: 11/10/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
04/29/2023	1,834.17 ton	As-is		0.00	6,411.60	1,458.00	8,798.40	82.80	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	23.51	301.54	68.57	413.79	0.00

05/01/2023: Corn Silage

Crop: Corn Silage Acres planted: 78 Plant date: 05/01/2023

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	2,628.37 ton	As-is		0.00	4,655.00	833.00	8,351.00	14.00	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	1,008.00	212.80	1,120.00	560.00
Total actual harvest content	33.70	313.72	56.14	562.81	0.00

Field Name: 6

03/25/2023: Corn, Early Silage

Crop: Corn, Early Silage Acres planted: 78 Plant date: 03/25/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
07/25/2023	2,349.98 ton	As-is		0.00	4,305.00	759.50	7,182.00	31.50	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	1,020.00	180.00	1,200.00	600.00
Total actual harvest content	30.13	259.40	45.76	432.76	0.00

08/01/2023: Corn, Late Silage

Crop: Corn, Late Silage Acres planted: 78 Plant date: 08/01/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/20/2023	1,949.45 ton	As-is		0.00	7,774.80	847.40	7,341.60	0.00	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	24.99	388.63	42.36	366.98	0.00

Field Name: 7

11/10/2022: Triticale

Crop: Triticale Acres planted: 140 Plant date: 11/10/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
04/28/2023	3,106.18 ton	As-is		0.00	6,260.40	1,422.00	9,406.80	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	22.19	277.80	63.10	417.42	0.00

05/01/2023: Corn Silage

Crop: Corn Silage Acres planted: 140 Plant date: 05/01/2023

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	3,959.06 ton	As-is		0.00	4,200.00	903.00	7,455.00	21.00	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	1,008.00	212.80	1,120.00	560.00
Total actual harvest content	28.28	237.54	51.07	421.64	0.00

Field Name: 8

11/10/2022: Triticale

Crop: Triticale Acres planted: 30 Plant date: 11/10/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/17/2023	576.69 ton	As-is		0.00	6,134.40	1,648.80	11,419.20	75.60	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	19.22	235.84	63.39	439.02	0.00

05/01/2023: Milo

Crop: Milo Acres planted: 30 Plant date: 05/01/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/01/2023	481.62 ton	As-is		0.00	2,870.00	931.00	10,094.00	52.50	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	22.00	299.20	220.00	189.20	440.00
Total actual harvest content	16.05	92.15	29.89	324.10	0.00

NUTRIENT BUDGET

A. LAND APPLICATIONS

1A

Field name: 1A Crop: Corn, Early Silage Plant date: 03/25/2023

03/25/2023: Corn, Early Silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/20/2023	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	252.00 <i>Lbs</i>
Corral Solids	Corral Solids	218.37	58.41	120.52	2,991.36	108.00 <i>ton</i>
Application event totals		232.37	58.41	120.52	2,991.36	

03/31/2023	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
REACTION 2-6-6	Commercial fertilizer / Other: Liquid commercial fertilizer	2.88	8.64	8.64	0.00	270.00 <i>Gal.</i>
NOVUS 28-0-0	Commercial fertilizer / Other: Liquid commercial fertilizer	3.14	0.00	0.00	0.00	18.00 <i>Gal.</i>
Anova 5-0-0	Commercial fertilizer / Other: Liquid commercial fertilizer	0.12	0.00	0.00	0.00	18.00 <i>Qt.</i>
Application event totals		6.14	8.64	8.64	0.00	

04/10/2023	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
Well Water	Ground water	2.16	0.00	0.82	169.93	2,715,156.93 <i>gal</i>
Nitro 721 28.6-0-0-.8ca	Commercial fertilizer / Other: Liquid commercial fertilizer	32.58	0.00	0.00	0.00	180.00 <i>Gal.</i>
Application event totals		34.74	0.00	0.82	169.93	

04/26/2023	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	1.96	0.00	0.75	154.49	2,468,324.65 <i>gal</i>
Lagoon Water Effluent	Process wastewater	14.36	40,272.71	35.06	156.54	306,952.05 <i>gal</i>
Application event totals		16.32	40,272.71	35.81	311.03	

05/10/2023	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
Well Water	Ground water	2.38	0.00	0.91	187.22	2,991,316.05 <i>gal</i>
Application event totals		2.38	0.00	0.91	187.22	

05/24/2023	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	2.28	0.00	0.87	179.88	2,874,009.64 <i>gal</i>
Nitro 721 28.6-0-0-.8ca	Commercial fertilizer / Other: Liquid commercial fertilizer	55.38	0.00	0.00	0.00	306.00 <i>Gal.</i>
Application event totals		57.66	0.00	0.87	179.88	

06/07/2023	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	2.35	0.00	0.90	185.38	2,961,989.45 <i>gal</i>
Application event totals		2.35	0.00	0.90	185.38	

06/22/2023	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	2.02	0.00	0.77	159.07	2,541,641.04 <i>gal</i>
Application event totals		2.02	0.00	0.77	159.07	

Field name: 1B

Crop: Corn, Early Silage

Plant date: 03/25/2023

03/25/2023: Corn, Early Silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/20/2023	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	938.00 <i>Lbs</i>
Corral Solids	Corral Solids	254.76	68.15	140.61	3,489.92	469.00 <i>ton</i>
Application event totals		268.76	68.15	140.61	3,489.92	

03/31/2023	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
REACTION 2-6-6	Commercial fertilizer / Other: Liquid commercial fertilizer	2.88	8.64	8.64	0.00	1,005.00 <i>Gal.</i>
NOVUS 28-0-0	Commercial fertilizer / Other: Liquid commercial fertilizer	3.14	0.00	0.00	0.00	67.00 <i>Gal.</i>
Anova 5-0-0	Commercial fertilizer / Other: Liquid commercial fertilizer	0.12	0.00	0.00	0.00	67.00 <i>Qt.</i>
Application event totals		6.14	8.64	8.64	0.00	

04/10/2023	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
Well Water	Ground water	2.03	0.00	0.78	159.84	9,506,036.36 <i>gal</i>
Nitro 721 28.6-0-0-.8ca	Commercial fertilizer / Other: Liquid commercial fertilizer	32.58	0.00	0.00	0.00	670.00 <i>Gal.</i>
Application event totals		34.61	0.00	0.78	159.84	

04/26/2023	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	1.86	0.00	0.71	146.84	8,732,818.60 <i>gal</i>
Lagoon Water Effluent	Process wastewater	14.36	40,272.71	35.06	156.54	1,142,543.76 <i>gal</i>
Application event totals		16.22	40,272.71	35.77	303.38	

05/10/2023	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
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Well Water	Ground water	2.31	0.00	0.88	181.71	10,806,862.69 <i>gal</i>
Application event totals		2.31	0.00	0.88	181.71	

05/24/2023	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	2.35	0.00	0.90	185.38	11,025,182.94 <i>gal</i>
Nitro 721 28.6-0-0-.8ca	Commercial fertilizer / Other: Liquid commercial fertilizer	32.58	0.00	0.00	0.00	670.00 <i>Gal.</i>
Application event totals		34.93	0.00	0.90	185.38	

06/07/2023	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	2.33	0.00	0.89	183.55	10,916,022.81 <i>gal</i>
Application event totals		2.33	0.00	0.89	183.55	

06/22/2023	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	1.92	0.00	0.73	151.43	9,005,718.47 <i>gal</i>
Application event totals		1.92	0.00	0.73	151.43	

Field name: 2A

Crop: Corn Silage

Plant date: 05/01/2023

05/01/2023: Corn 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
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	252.00 <i>Lbs</i>
Corral Solids	Corral Solids	181.97	48.68	100.43	2,492.80	90.00 <i>ton</i>
Well Water	Ground water	1.96	0.00	0.75	154.46	2,467,835.68 <i>gal</i>
Application event totals		197.93	48.68	101.18	2,647.26	
05/13/2023	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	2.49	0.00	0.95	196.37	3,137,460.54 <i>gal</i>
Lagoon Water Effluent	Process wastewater	30.23	91,641.45	46.80	394.98	306,463.25 <i>gal</i>
Application event totals		32.72	91,641.45	47.75	591.35	
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
Well Water	Ground water	2.43	0.00	0.93	191.07	3,052,901.93 <i>gal</i>
Lagoon Water Effluent	Process wastewater	22.57	68,402.24	34.93	294.82	228,747.70 <i>gal</i>
Application event totals		25.00	68,402.24	35.86	485.89	
06/09/2023	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	1.91	0.00	0.73	150.23	2,400,384.43 <i>gal</i>
Application event totals		1.91	0.00	0.73	150.23	
06/23/2023	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	2.43	0.00	0.93	191.17	3,054,368.39 <i>gal</i>
Lagoon Water Effluent	Process wastewater	32.74	99,241.71	50.68	427.74	331,879.69 <i>gal</i>
Application event totals		35.17	99,241.71	51.61	618.91	
07/09/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount

description						
Well Water	Ground water	1.95	0.00	0.75	153.63	2,454,638.72 <i>gal</i>
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	53.09	0.00	0.00	0.00	270.00 <i>Gal.</i>
Application event totals		55.04	0.00	0.75	153.63	

07/26/2023	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	2.02	0.00	0.77	159.23	2,544,084.98 <i>gal</i>
Application event totals		2.02	0.00	0.77	159.23	

11/10/2022: Triticale

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
11/01/2022	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	215.26	58.92	233.44	2,915.84	144.00 <i>ton</i>
Application event totals		215.26	58.92	233.44	2,915.84	

11/10/2022	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	1.11	0.00	0.00	139.16	1,837,802.04 <i>gal</i>
Application event totals		1.11	0.00	0.00	139.16	

12/04/2022	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	1.03	0.00	0.00	128.80	1,700,944.46 <i>gal</i>
Lagoon Water Effluent	Process wastewater	30.85	89,808.92	35.41	293.77	226,303.82 <i>gal</i>
Application event totals		31.88	89,808.92	35.41	422.57	

12/28/2022	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	1.31	0.00	0.00	164.70	2,175,058.18 <i>gal</i>
Application event totals		1.31	0.00	0.00	164.70	

01/22/2023	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	1.71	0.00	0.65	134.60	2,150,619.47 <i>gal</i>

Application event totals		1.71	0.00	0.65	134.60	
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02/16/2023	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
Well Water	Ground water	1.77	0.00	0.68	139.19	2,223,936.08 <i>gal</i>
Lagoon Water Effluent	Process wastewater	35.89	100,681.77	87.64	391.34	767,380.14 <i>gal</i>
Application event totals		37.66	100,681.77	88.32	530.53	

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
Well Water	Ground water	1.59	0.00	0.61	125.42	2,003,986.23 <i>gal</i>
Application event totals		1.59	0.00	0.61	125.42	

04/07/2023	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	1.85	0.00	0.71	145.31	2,321,691.42 <i>gal</i>
Lagoon Water Effluent	Process wastewater	30.16	84,585.51	73.63	328.78	644,697.05 <i>gal</i>
Application event totals		32.01	84,585.51	74.34	474.09	

04/30/2023	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	1.96	0.00	0.75	154.49	2,468,324.65 <i>gal</i>
Application event totals		1.96	0.00	0.75	154.49	

Field name: 2B

Crop: Corn Silage

Plant date: 05/01/2023

05/01/2023: Corn 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
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	938.00 <i>Lbs</i>
Corral Solids	Corral Solids	145.58	38.94	80.35	1,994.24	268.00 <i>ton</i>
Well Water	Ground water	1.85	0.00	0.71	145.31	8,641,851.39 <i>gal</i>
Application event totals		161.43	38.94	81.06	2,139.55	
05/13/2023	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	2.33	0.00	0.89	183.55	10,916,022.81 <i>gal</i>
Lagoon Water Effluent	Process wastewater	35.88	108,742.02	55.53	468.69	1,353,586.86 <i>gal</i>
Application event totals		38.21	108,742.02	56.42	652.24	
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
Well Water	Ground water	1.92	0.00	0.73	151.43	9,005,718.47 <i>gal</i>
Lagoon Water Effluent	Process wastewater	35.88	108,742.02	55.53	468.69	1,353,586.86 <i>gal</i>
Application event totals		37.80	108,742.02	56.26	620.12	
06/09/2023	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	2.40	0.00	0.92	189.05	11,243,503.18 <i>gal</i>
Application event totals		2.40	0.00	0.92	189.05	
06/23/2023	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	2.31	0.00	0.88	181.71	10,806,862.69 <i>gal</i>
Lagoon Water Effluent	Process wastewater	35.88	108,742.02	55.53	468.69	1,353,586.86 <i>gal</i>
Application event totals		38.19	108,742.02	56.41	650.40	
07/09/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount

description						
Well Water	Ground water	2.40	0.00	0.92	189.05	11,243,503.18 <i>gal</i>
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	53.09	0.00	0.00	0.00	1,005.00 <i>Gal.</i>
Application event totals		55.49	0.00	0.92	189.05	

07/26/2023	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	2.02	0.00	0.77	159.07	9,460,552.76 <i>gal</i>
Application event totals		2.02	0.00	0.77	159.07	

11/10/2022: Triticale

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
11/01/2022	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	215.26	58.92	233.44	2,915.84	536.00 <i>ton</i>
Application event totals		215.26	58.92	233.44	2,915.84	

11/10/2022	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	1.16	0.00	0.00	145.09	7,131,801.71 <i>gal</i>
Application event totals		1.16	0.00	0.00	145.09	

12/04/2022	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	0.99	0.00	0.00	124.36	6,112,972.58 <i>gal</i>
Lagoon Water Effluent	Process wastewater	30.85	89,808.92	35.41	293.77	842,353.09 <i>gal</i>
Application event totals		31.84	89,808.92	35.41	418.13	

12/28/2022	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	1.25	0.00	0.00	157.30	7,732,182.82 <i>gal</i>
Application event totals		1.25	0.00	0.00	157.30	

01/22/2023	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	1.75	0.00	0.67	137.66	8,187,017.11 <i>gal</i>

Application event totals		1.75	0.00	0.67	137.66	
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02/16/2023	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
Well Water	Ground water	1.85	0.00	0.71	145.31	8,641,851.39 <i>gal</i>
Lagoon Water Effluent	Process wastewater	35.89	100,681.77	87.64	391.34	2,856,359.40 <i>gal</i>
Application event totals		37.74	100,681.77	88.35	536.65	

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
Well Water	Ground water	1.73	0.00	0.66	136.13	8,096,049.90 <i>gal</i>
Application event totals		1.73	0.00	0.66	136.13	

04/07/2023	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	1.92	0.00	0.73	151.43	9,005,718.47 <i>gal</i>
Lagoon Water Effluent	Process wastewater	30.16	84,585.51	73.63	328.78	2,399,705.69 <i>gal</i>
Application event totals		32.08	84,585.51	74.36	480.21	

04/30/2023	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	1.92	0.00	0.73	151.43	9,005,718.47 <i>gal</i>
Application event totals		1.92	0.00	0.73	151.43	

Field name: 3

Crop: Alfalfa

Plant date: 10/15/2020

10/15/2020: Alfalfa

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
01/01/2023	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>
Application event totals		14.00	0.00	0.00	0.00	
02/08/2023	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	1.97	0.00	0.75	155.13	10,740,552.03 <i>gal</i>
Application event totals		1.97	0.00	0.75	155.13	
03/05/2023	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	1.39	0.00	0.53	109.24	7,563,500.61 <i>gal</i>
Application event totals		1.39	0.00	0.53	109.24	
03/28/2023	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	1.53	0.00	0.58	120.16	8,319,638.58 <i>gal</i>
Application event totals		1.53	0.00	0.58	120.16	
04/28/2023	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	2.19	0.00	0.84	172.60	11,949,949.81 <i>gal</i>
Application event totals		2.19	0.00	0.84	172.60	
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	1.57	0.00	0.60	123.74	8,567,448.81 <i>gal</i>
Application event totals		1.57	0.00	0.60	123.74	
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	1.92	0.00	0.73	150.97	10,452,499.03 <i>gal</i>
Application event totals		1.92	0.00	0.73	150.97	
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
Well Water	Ground water	2.26	0.00	0.86	177.95	12,320,605.20 <i>gal</i>
Application event totals		2.26	0.00	0.86	177.95	
08/23/2023	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	2.18	0.00	0.83	171.53	11,875,817.92 <i>gal</i>
Application event totals		2.18	0.00	0.83	171.53	
09/20/2023	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	1.82	0.00	0.70	143.69	9,948,407.05 <i>gal</i>
Application event totals		1.82	0.00	0.70	143.69	
10/22/2023	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
Well Water	Ground water	1.96	0.00	0.75	154.06	10,666,420.14 <i>gal</i>
Application event totals		1.96	0.00	0.75	154.06	

Field name: 4

Crop: Corn, Early Silage

Plant date: 03/25/2023

03/25/2023: Corn, Early Silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/20/2023	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	1,092.00 <i>Lbs</i>
Corral Solids	Corral Solids	181.97	48.68	100.43	2,492.80	390.00 <i>ton</i>
Application event totals		195.97	48.68	100.43	2,492.80	

03/31/2023	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
REACTION 2-6-6	Commercial fertilizer / Other: Liquid commercial fertilizer	2.88	8.64	8.64	0.00	1,170.00 <i>Gal.</i>
NOVUS 28-0-0	Commercial fertilizer / Other: Liquid commercial fertilizer	3.14	0.00	0.00	0.00	78.00 <i>Gal.</i>
Anova 5-0-0	Commercial fertilizer / Other: Liquid commercial fertilizer	0.12	0.00	0.00	0.00	78.00 <i>Qt.</i>
Application event totals		6.14	8.64	8.64	0.00	

04/10/2023	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
Well Water	Ground water	2.66	0.00	1.02	209.52	14,506,416.71 <i>gal</i>
Nitro 721 28.6-0-0-.8ca	Commercial fertilizer / Other: Liquid commercial fertilizer	32.58	0.00	0.00	0.00	780.00 <i>Gal.</i>
Application event totals		35.24	0.00	1.02	209.52	

04/26/2023	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	2.03	0.00	0.78	160.05	11,081,555.07 <i>gal</i>
Lagoon Water Effluent	Process wastewater	6.61	18,533.14	16.13	72.04	612,111.92 <i>gal</i>
Application event totals		8.64	18,533.14	16.91	232.09	

05/10/2023	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
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Well Water	Ground water	2.81	0.00	1.08	221.57	15,340,922.33 <i>gal</i>
Application event totals		2.81	0.00	1.08	221.57	

05/24/2023	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	2.08	0.00	0.79	163.82	11,342,073.59 <i>gal</i>
Nitro 721 28.6-0-0-.8ca	Commercial fertilizer / Other: Liquid commercial fertilizer	32.58	0.00	0.00	0.00	780.00 <i>Gal.</i>
Application event totals		34.66	0.00	0.79	163.82	

06/07/2023	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	1.86	0.00	0.71	146.47	10,141,148.34 <i>gal</i>
Application event totals		1.86	0.00	0.71	146.47	

06/22/2023	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	1.94	0.00	0.74	152.38	10,549,928.62 <i>gal</i>
Application event totals		1.94	0.00	0.74	152.38	

Field name: 5

Crop: Corn Silage

Plant date: 05/01/2023

05/01/2023: Corn 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
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	1,092.00 <i>Lbs</i>
Corral Solids	Corral Solids	181.97	48.68	100.43	2,492.80	390.00 <i>ton</i>
Application event totals		195.97	48.68	100.43	2,492.80	
04/24/2023	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	1.90	0.00	0.73	149.90	10,378,368.16 <i>gal</i>
Application event totals		1.90	0.00	0.73	149.90	
05/22/2023	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
Well Water	Ground water	2.28	0.00	0.87	179.88	12,454,041.79 <i>gal</i>
Lagoon Water Effluent	Process wastewater	35.88	108,742.02	55.53	468.69	1,575,817.54 <i>gal</i>
Application event totals		38.16	108,742.02	56.40	648.57	
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
Well Water	Ground water	1.94	0.00	0.74	152.96	10,590,171.38 <i>gal</i>
Lagoon Water Effluent	Process wastewater	35.88	108,742.02	55.53	468.69	1,575,817.54 <i>gal</i>
Application event totals		37.82	108,742.02	56.27	621.65	
06/18/2023	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
Well Water	Ground water	2.38	0.00	0.91	187.22	12,962,369.53 <i>gal</i>
Application event totals		2.38	0.00	0.91	187.22	
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
Well Water	Ground water	2.38	0.00	0.91	187.22	12,962,369.53 <i>gal</i>
Lagoon Water Effluent	Process wastewater	35.88	108,742.02	55.53	468.69	1,575,817.54 <i>gal</i>

Application event totals		38.26	108,742.02	56.44	655.91	
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07/18/2023	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	2.42	0.00	0.93	190.89	13,216,533.40 <i>gal</i>
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	53.09	0.00	0.00	0.00	1,170.00 <i>Gal.</i>
Application event totals		55.51	0.00	0.93	190.89	

08/04/2023	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	2.00	0.00	0.76	157.55	10,907,876.73 <i>gal</i>
Application event totals		2.00	0.00	0.76	157.55	

11/10/2022: Triticale

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
11/01/2022	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	215.26	58.92	233.44	2,915.84	624.00 <i>ton</i>
Application event totals		215.26	58.92	233.44	2,915.84	

11/10/2022	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	1.02	0.00	0.00	127.32	7,286,038.03 <i>gal</i>
Application event totals		1.02	0.00	0.00	127.32	

12/04/2022	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	1.06	0.00	0.00	133.24	7,624,923.19 <i>gal</i>
Lagoon Water Effluent	Process wastewater	30.85	89,808.92	35.41	293.77	980,649.87 <i>gal</i>
Application event totals		31.91	89,808.92	35.41	427.01	

12/28/2022	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	1.24	0.00	0.00	155.45	8,895,743.56 <i>gal</i>
Application event totals		1.24	0.00	0.00	155.45	

01/22/2023	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	1.61	0.00	0.62	126.95	8,789,842.45 <i>gal</i>
Application event totals		1.61	0.00	0.62	126.95	

02/16/2023	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
Well Water	Ground water	1.69	0.00	0.65	133.07	9,213,448.90 <i>gal</i>
Lagoon Water Effluent	Process wastewater	35.89	100,681.77	87.64	391.34	3,325,313.93 <i>gal</i>
Application event totals		37.58	100,681.77	88.29	524.41	

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
Well Water	Ground water	1.79	0.00	0.68	140.72	9,742,957.47 <i>gal</i>
Application event totals		1.79	0.00	0.68	140.72	

04/07/2023	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	1.96	0.00	0.75	154.49	10,696,073.50 <i>gal</i>
Lagoon Water Effluent	Process wastewater	30.16	84,585.51	73.63	328.78	2,793,687.22 <i>gal</i>
Application event totals		32.12	84,585.51	74.38	483.27	

Field name: 6

Crop: Corn, Early Silage

Plant date: 03/25/2023

03/25/2023: Corn, Early Silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/20/2023	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	1,092.00 <i>Lbs</i>
Corral Solids	Corral Solids	218.37	58.41	120.52	2,991.36	468.00 <i>ton</i>
Application event totals		232.37	58.41	120.52	2,991.36	

04/16/2023	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
REACTION 2-6-6	Commercial fertilizer / Other: Liquid commercial fertilizer	2.88	8.64	8.64	0.00	1,170.00 <i>Gal.</i>
NOVUS 28-0-0	Commercial fertilizer / Other: Liquid commercial fertilizer	3.14	0.00	0.00	0.00	78.00 <i>Gal.</i>
Anova 5-0-0	Commercial fertilizer / Other: Liquid commercial fertilizer	0.12	0.00	0.00	0.00	78.00 <i>Qt.</i>
Application event totals		6.14	8.64	8.64	0.00	

04/26/2023	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	2.16	0.00	0.82	169.93	11,765,680.04 <i>gal</i>
Nitro 721 28.6-0-0-.8ca	Commercial fertilizer / Other: Liquid commercial fertilizer	32.58	0.00	0.00	0.00	780.00 <i>Gal.</i>
Application event totals		34.74	0.00	0.82	169.93	

05/12/2023	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	1.90	0.00	0.73	149.90	10,378,368.16 <i>gal</i>
Lagoon Water Effluent	Process wastewater	14.36	40,272.71	35.06	156.54	1,330,125.57 <i>gal</i>
Application event totals		16.26	40,272.71	35.79	306.44	

05/26/2023	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
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Well Water	Ground water	2.31	0.00	0.88	181.71	12,581,123.73 <i>gal</i>
Application event totals		2.31	0.00	0.88	181.71	

06/09/2023	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	2.28	0.00	0.87	179.88	12,454,041.79 <i>gal</i>
Nitro 721 28.6-0-0-.8ca	Commercial fertilizer / Other: Liquid commercial fertilizer	55.38	0.00	0.00	0.00	1,326.00 <i>Gal.</i>
Application event totals		57.66	0.00	0.87	179.88	

06/23/2023	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	2.31	0.00	0.88	181.71	12,581,123.73 <i>gal</i>
Application event totals		2.31	0.00	0.88	181.71	

07/08/2023	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	1.92	0.00	0.73	151.43	10,484,269.27 <i>gal</i>
Application event totals		1.92	0.00	0.73	151.43	

08/01/2023: Corn, Late Silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/25/2023	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
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	1,092.00 <i>Lbs</i>
Corral Solids	Corral Solids	196.03	61.78	177.18	3,053.20	390.00 <i>ton</i>
Well Water	Ground water	2.04	0.00	0.78	160.97	11,145,096.54 <i>gal</i>
Application event totals		212.07	61.78	177.96	3,214.17	

08/13/2023	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
Well Water	Ground water	2.49	0.00	0.95	196.15	13,580,836.16 <i>gal</i>
Lagoon Water Effluent	Process wastewater	22.64	46,275.64	18.59	262.42	1,095,023.76 <i>gal</i>
Application event totals		25.13	46,275.64	19.54	458.57	

08/26/2023	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	2.39	0.00	0.91	187.92	13,011,084.83 <i>gal</i>
Application event totals		2.39	0.00	0.91	187.92	

09/09/2023	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	2.33	0.00	0.89	183.09	12,676,435.43 <i>gal</i>
Application event totals		2.33	0.00	0.89	183.09	

09/23/2023	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	2.67	0.00	1.02	209.86	14,529,715.42 <i>gal</i>
Lagoon Water Effluent	Process wastewater	23.47	47,976.29	19.27	272.07	1,135,266.40 <i>gal</i>
Application event totals		26.14	47,976.29	20.29	481.93	

10/09/2023	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	2.71	0.00	1.04	213.44	14,777,525.65 <i>gal</i>
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	53.09	0.00	0.00	0.00	1,170.00 <i>Gal.</i>
Application event totals		55.80	0.00	1.04	213.44	

Field name: 7Crop: Corn SilagePlant date: 05/01/2023**05/01/2023: Corn 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
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	1,960.00 <i>Lbs</i>
Corral Solids	Corral Solids	145.58	38.94	80.35	1,994.24	560.00 <i>ton</i>
Well Water	Ground water	1.94	0.00	0.74	152.96	19,007,999.92 <i>gal</i>
Application event totals		161.52	38.94	81.09	2,147.20	

05/13/2023	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	2.28	0.00	0.87	179.88	22,353,408.34 <i>gal</i>
Lagoon Water Effluent	Process wastewater	35.88	108,742.02	55.53	468.69	2,828,390.46 <i>gal</i>
Application event totals		38.16	108,742.02	56.40	648.57	

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
Well Water	Ground water	1.98	0.00	0.76	156.02	19,388,159.56 <i>gal</i>
Lagoon Water Effluent	Process wastewater	29.80	90,326.03	46.13	389.31	2,349,388.68 <i>gal</i>
Application event totals		31.78	90,326.03	46.89	545.33	

06/09/2023	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	2.31	0.00	0.88	181.71	22,581,504.12 <i>gal</i>
Application event totals		2.31	0.00	0.88	181.71	

06/23/2023	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	2.40	0.00	0.92	189.05	23,493,887.25 <i>gal</i>
Lagoon Water Effluent	Process wastewater	35.88	108,742.02	55.53	468.69	2,828,390.46 <i>gal</i>
Application event totals		38.28	108,742.02	56.45	657.74	

07/09/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount

description						
Well Water	Ground water	2.47	0.00	0.94	194.56	24,178,176.41 <i>gal</i>
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	53.09	0.00	0.00	0.00	2,100.00 <i>Gal.</i>
Application event totals		55.56	0.00	0.94	194.56	

07/26/2023	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	2.02	0.00	0.77	159.07	19,768,319.19 <i>gal</i>
Application event totals		2.02	0.00	0.77	159.07	

11/10/2022: Triticale

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
11/01/2022	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	188.35	51.55	204.26	2,551.36	980.00 <i>ton</i>
Application event totals		188.35	51.55	204.26	2,551.36	

11/10/2022	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	0.85	0.00	0.00	107.00	10,990,425.68 <i>gal</i>
Application event totals		0.85	0.00	0.00	107.00	

12/04/2022	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	1.15	0.00	0.00	143.98	14,788,224.34 <i>gal</i>
Lagoon Water Effluent	Process wastewater	30.85	89,808.92	35.41	293.77	1,760,140.79 <i>gal</i>
Application event totals		32.00	89,808.92	35.41	437.75	

12/28/2022	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	1.06	0.00	0.00	133.46	13,708,569.34 <i>gal</i>
Application event totals		1.06	0.00	0.00	133.46	

01/22/2023	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	1.55	0.00	0.59	122.18	15,183,590.18 <i>gal</i>

Application event totals		1.55	0.00	0.59	122.18	
02/16/2023	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	1.63	0.00	0.62	128.27	15,940,108.12 <i>gal</i>
Lagoon Water Effluent	Process wastewater	35.89	100,681.77	87.64	391.34	5,968,512.17 <i>gal</i>
Application event totals		37.52	100,681.77	88.26	519.61	
03/13/2023	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	1.46	0.00	0.56	114.63	14,244,595.06 <i>gal</i>
Application event totals		1.46	0.00	0.56	114.63	
04/07/2023	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
Well Water	Ground water	1.76	0.00	0.67	138.27	17,183,231.86 <i>gal</i>
Lagoon Water Effluent	Process wastewater	30.16	84,585.51	73.63	328.78	5,014,310.40 <i>gal</i>
Application event totals		31.92	84,585.51	74.30	467.05	

Field name: 8

Crop: Milo

Plant date: 05/01/2023

05/01/2023: Milo

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
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	420.00 <i>Lbs</i>
Application event totals		14.00	0.00	0.00	0.00	
05/04/2023	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
Well Water	Ground water	2.19	0.00	0.84	172.32	4,588,802.64 <i>gal</i>
Application event totals		2.19	0.00	0.84	172.32	
05/17/2023	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	2.38	0.00	0.91	187.46	4,992,043.69 <i>gal</i>
Application event totals		2.38	0.00	0.91	187.46	
06/01/2023	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
Well Water	Ground water	1.63	0.00	0.62	128.51	3,422,254.79 <i>gal</i>
Lagoon Water Effluent	Process wastewater	36.89	111,811.35	57.10	481.92	623,190.84 <i>gal</i>
Application event totals		38.52	111,811.35	57.72	610.43	
06/16/2023	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	2.07	0.00	0.79	163.20	4,346,043.44 <i>gal</i>
Lagoon Water Effluent	Process wastewater	65.58	198,775.73	101.51	856.74	1,107,894.86 <i>gal</i>
Application event totals		67.65	198,775.73	102.30	1,019.94	
07/01/2023	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
Well Water	Ground water	1.79	0.00	0.69	141.33	3,763,583.89 <i>gal</i>
Application event totals		1.79	0.00	0.69	141.33	

07/16/2023	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	1.79	0.00	0.69	141.21	3,760,325.61 <i>gal</i>
Application event totals		1.79	0.00	0.69	141.21	

11/10/2022: Triticale

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
11/01/2022	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	161.44	44.19	175.08	2,186.88	180.00 <i>ton</i>
Application event totals		161.44	44.19	175.08	2,186.88	
11/10/2022	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	0.80	0.00	0.00	99.71	2,194,609.37 <i>gal</i>
Application event totals		0.80	0.00	0.00	99.71	
12/04/2022	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	0.96	0.00	0.00	120.21	2,645,913.51 <i>gal</i>
Lagoon Water Effluent	Process wastewater	30.85	89,808.92	35.41	293.77	377,173.03 <i>gal</i>
Application event totals		31.81	89,808.92	35.41	413.98	
12/28/2022	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
Well Water	Ground water	1.25	0.00	0.00	156.71	3,449,137.52 <i>gal</i>
Application event totals		1.25	0.00	0.00	156.71	
01/22/2023	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
Well Water	Ground water	1.72	0.00	0.66	135.49	3,607,989.85 <i>gal</i>
Application event totals		1.72	0.00	0.66	135.49	
02/16/2023	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	1.40	0.00	0.54	110.31	2,937,550.57 <i>gal</i>

Lagoon Water Effluent	Process wastewater	35.89	100,681.77	87.64	391.34	1,278,966.89 <i>gal</i>
Application event totals		37.29	100,681.77	88.18	501.65	

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
Well Water	Ground water	1.45	0.00	0.55	114.29	3,043,452.38 <i>gal</i>
Application event totals		1.45	0.00	0.55	114.29	

04/07/2023	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	2.14	0.00	0.82	168.68	4,491,861.87 <i>gal</i>
Lagoon Water Effluent	Process wastewater	30.16	84,585.51	73.63	328.78	1,074,495.09 <i>gal</i>
Application event totals		32.30	84,585.51	74.45	497.46	

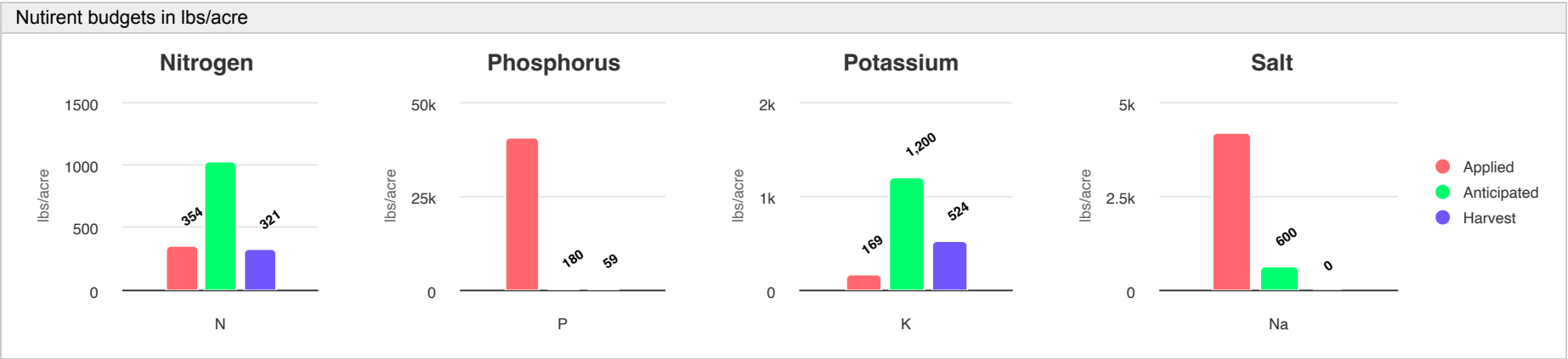
04/30/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	1.92	0.00	0.73	150.85	4,016,933.66 <i>gal</i>
Application event totals		1.92	0.00	0.73	150.85	

B. NUTRIENT BUDGET

1A - 03/25/2023: Corn, Early Silage

Field name: 1A Crop: Corn, Early Silage Plant date: 03/25/2023



	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	94.10	8.64	8.64	0.00
Dry manure	218.37	58.41	120.52	2,991.36
Process wastewater	14.36	40,272.71	35.06	156.54
Fresh water	13.15	0.00	5.02	1,035.97
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	353.98	40,339.76	169.24	4,183.87
Anticipated crop nutrient removal	1,020.00	180.00	1,200.00	600.00
Actual crop nutrient removal	320.74	58.69	524.10	0.00
Nutrient balance	33.24	40,281.07	-354.86	4,183.87
Applied to removed ratio	1.10	687.36	0.32	0.00

Fresh water applied	
16,552,437.76	gallons
609.57	acre-inches
33.86	inches/acre

Process wastewater applied	
306,952.05	gallons
11.30	acre-inches
0.63	inches/acre

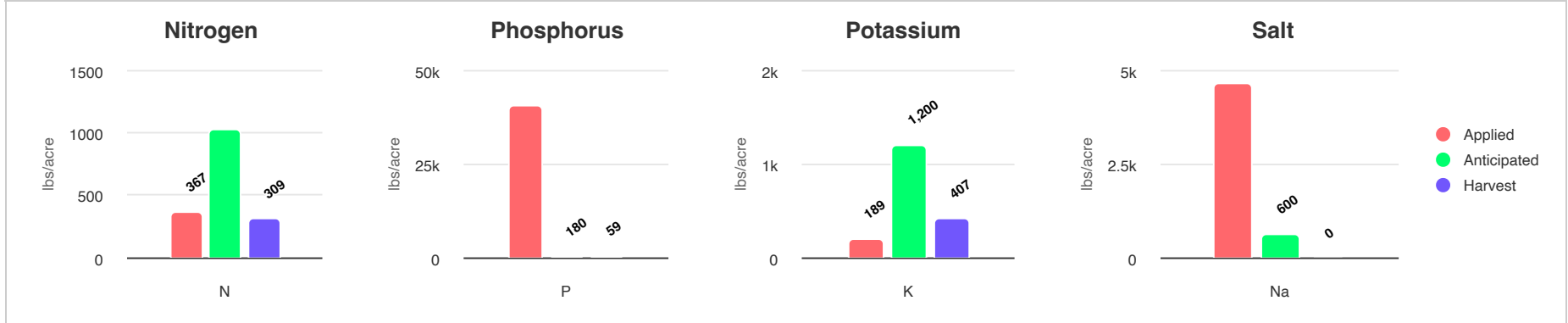
Total Harvests for the crop	
1	harvests

Field name: 1B

Crop: Corn, Early Silage

Plant date: 03/25/2023

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	71.30	8.64	8.64	0.00
Dry manure	254.76	68.15	140.61	3,489.92
Process wastewater	14.36	40,272.71	35.06	156.54
Fresh water	12.80	0.00	4.89	1,008.75
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	367.22	40,349.50	189.20	4,655.21
Anticipated crop nutrient removal	1,020.00	180.00	1,200.00	600.00
Actual crop nutrient removal	309.36	58.69	407.40	0.00
Nutrient balance	57.86	40,290.81	-218.21	4,655.21
Applied to removed ratio	1.19	687.53	0.46	0.00

Fresh water applied

59,992,641.86 gallons
 2,209.32 acre-inches
 32.97 inches/acre

Process wastewater applied

1,142,543.76 gallons
 42.08 acre-inches
 0.63 inches/acre

Total Harvests for the crop

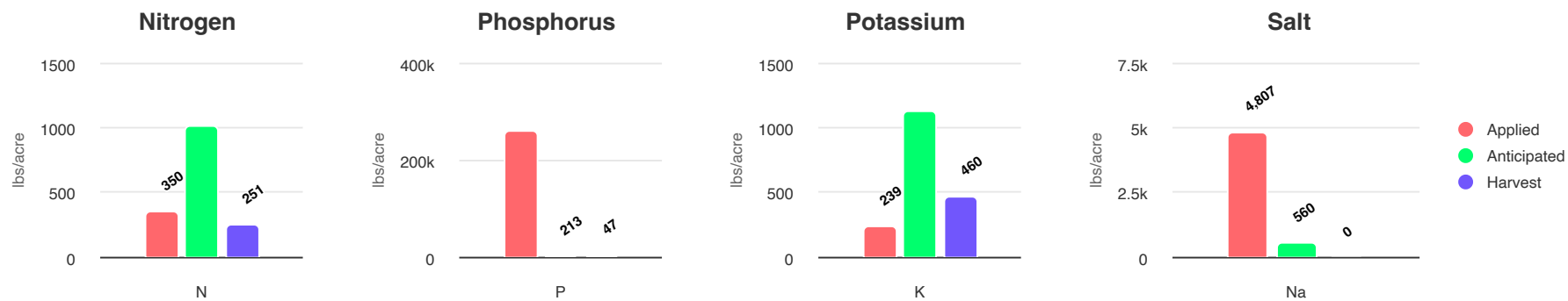
1 harvests

Field name: 2A

Crop: Corn Silage

Plant date: 05/01/2023

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	53.09	0.00	0.00	0.00
Dry manure	181.97	48.68	100.43	2,492.80
Process wastewater	85.54	259,285.40	132.41	1,117.54
Fresh water	15.19	0.00	5.81	1,196.16
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	349.79	259,334.08	238.65	4,806.50
Anticipated crop nutrient removal	1,008.00	212.80	1,120.00	560.00
Actual crop nutrient removal	251.03	47.14	459.99	0.00
Nutrient balance	98.76	259,286.94	-221.33	4,806.50
Applied to removed ratio	1.39	5,501.76	0.52	0.00

Fresh water applied

19,111,674.67 *gallons*
 703.82 *acre-inches*
 39.10 *inches/acre*

Process wastewater applied

867,090.64 *gallons*
 31.93 *acre-inches*
 1.77 *inches/acre*

Total Harvests for the crop

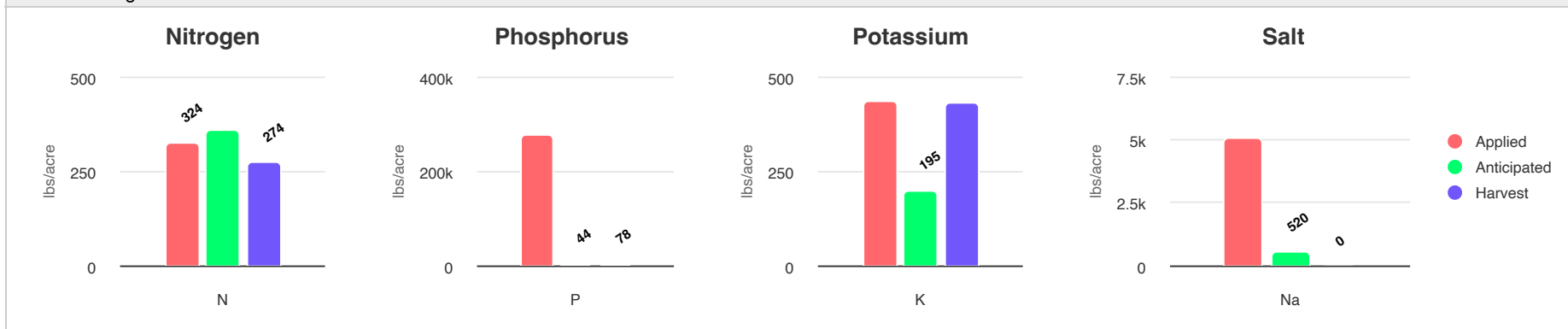
1 *harvests*

Field name: 2A

Crop: Triticale

Plant date: 11/10/2022

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	215.26	58.92	233.44	2,915.84
Process wastewater	96.90	275,076.20	196.68	1,013.89
Fresh water	12.33	0.00	3.40	1,131.67
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	324.49	275,135.12	433.52	5,061.40
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	274.22	77.86	429.29	0.00
Nutrient balance	50.27	275,057.26	4.23	5,061.40
Applied to removed ratio	1.18	3,533.71	1.01	0.00

Fresh water applied

16,882,362.54 gallons
 621.72 acre-inches
 34.54 inches/acre

Process wastewater applied

1,638,381.00 gallons
 60.34 acre-inches
 3.35 inches/acre

Total Harvests for the crop

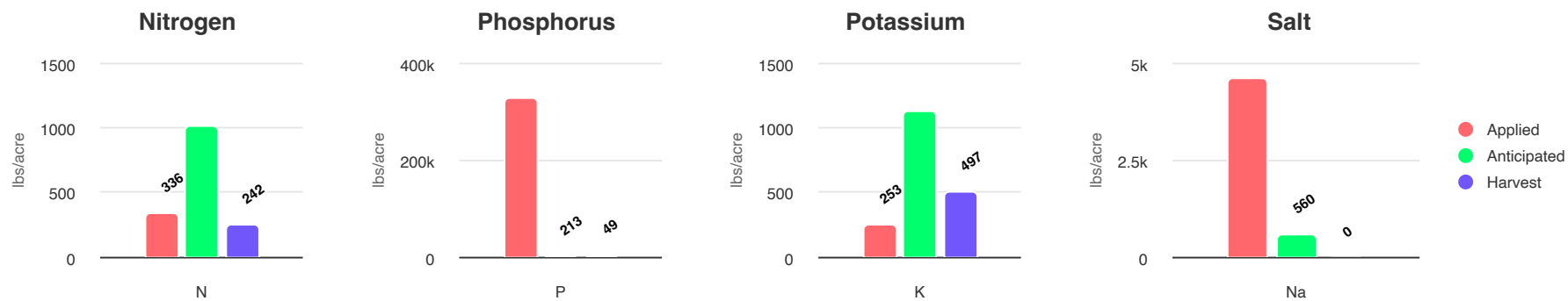
1 harvests

Field name: 2B

Crop: Corn Silage

Plant date: 05/01/2023

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	53.09	0.00	0.00	0.00
Dry manure	145.58	38.94	80.35	1,994.24
Process wastewater	107.64	326,226.06	166.59	1,406.07
Fresh water	15.23	0.00	5.82	1,199.17
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	335.54	326,265.00	252.76	4,599.48
Anticipated crop nutrient removal	1,008.00	212.80	1,120.00	560.00
Actual crop nutrient removal	242.00	48.76	496.65	0.00
Nutrient balance	93.54	326,216.24	-243.89	4,599.48
Applied to removed ratio	1.39	6,690.97	0.51	0.00

Fresh water applied

71,318,014.49 gallons
 2,626.40 acre-inches
 39.20 inches/acre

Process wastewater applied

4,060,760.58 gallons
 149.54 acre-inches
 2.23 inches/acre

Total Harvests for the crop

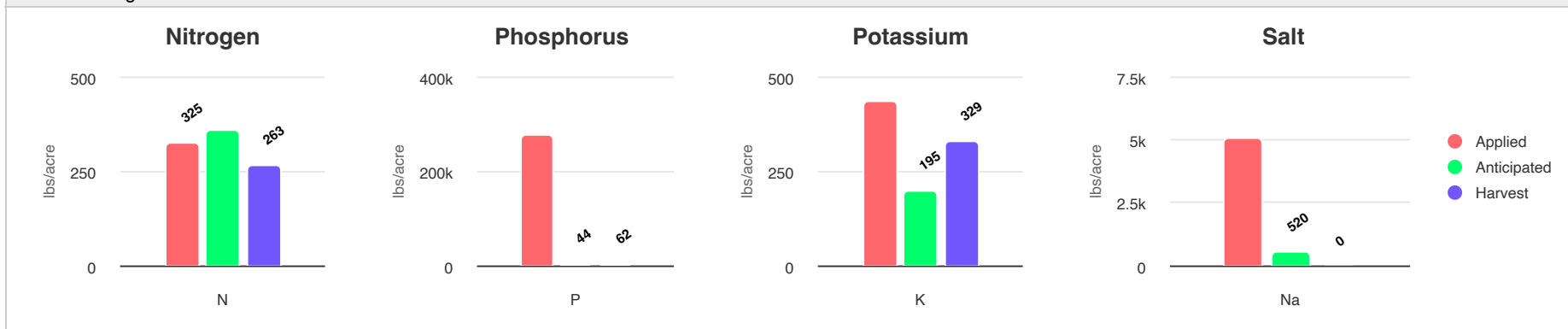
1 harvests

Field name: 2B

Crop: Triticale

Plant date: 11/10/2022

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	215.26	58.92	233.44	2,915.84
Process wastewater	96.90	275,076.20	196.68	1,013.89
Fresh water	12.57	0.00	3.50	1,148.71
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	324.73	275,135.12	433.62	5,078.44
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	263.33	62.26	329.00	0.00
Nutrient balance	61.40	275,072.86	104.62	5,078.44
Applied to removed ratio	1.23	4,419.45	1.32	0.00

Fresh water applied

63,913,312.47 gallons
 2,353.71 acre-inches
 35.13 inches/acre

Process wastewater applied

6,098,418.18 gallons
 224.58 acre-inches
 3.35 inches/acre

Total Harvests for the crop

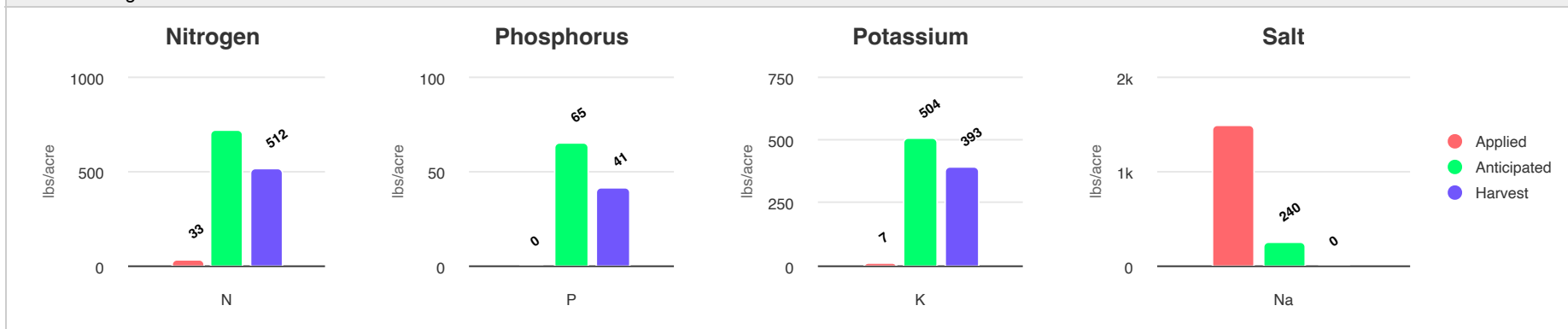
1 harvests

Field name: 3

Crop: Alfalfa

Plant date: 10/15/2020

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	0.00	0.00	0.00	0.00
Process wastewater	0.00	0.00	0.00	0.00
Fresh water	18.79	0.00	7.17	1,479.07
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	32.79	0.00	7.17	1,479.07
Anticipated crop nutrient removal	720.00	64.80	504.00	240.00
Actual crop nutrient removal	511.90	40.59	392.55	0.00
Nutrient balance	-479.11	-40.59	-385.38	1,479.07
Applied to removed ratio	0.06	0.00	0.02	0.00

Fresh water applied

102,404,839.20 gallons
 3,771.22 acre-inches
 48.35 inches/acre

Process wastewater applied

0.00 gallons
 0.00 acre-inches
 0.00 inches/acre

Total Harvests for the crop

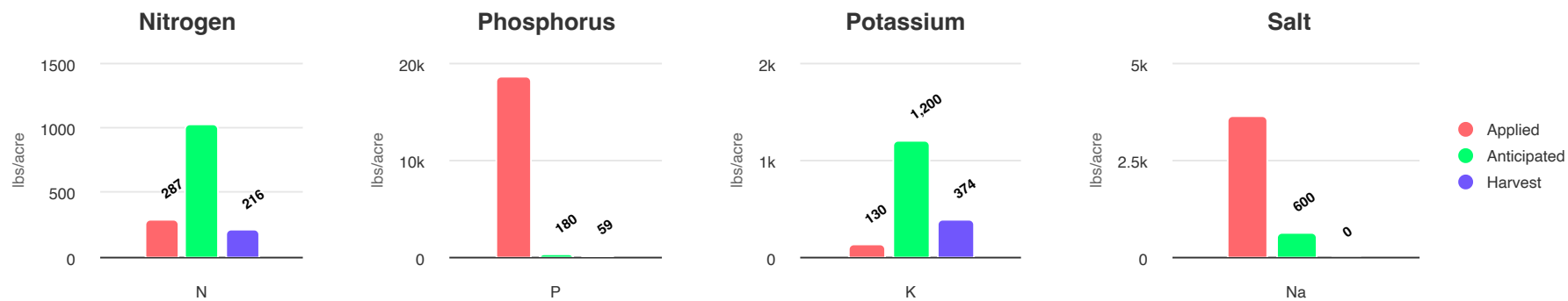
8 harvests

Field name: 4

Crop: Corn, Early Silage

Plant date: 03/25/2023

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	71.30	8.64	8.64	0.00
Dry manure	181.97	48.68	100.43	2,492.80
Process wastewater	6.61	18,533.14	16.13	72.04
Fresh water	13.38	0.00	5.12	1,053.81
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	287.26	18,590.46	130.32	3,618.65
Anticipated crop nutrient removal	1,020.00	180.00	1,200.00	600.00
Actual crop nutrient removal	215.97	58.88	373.73	0.00
Nutrient balance	71.30	18,531.58	-243.41	3,618.65
Applied to removed ratio	1.33	315.74	0.35	0.00

Fresh water applied

72,962,044.67 gallons
 2,686.94 acre-inches
 34.45 inches/acre

Process wastewater applied

612,111.92 gallons
 22.54 acre-inches
 0.29 inches/acre

Total Harvests for the crop

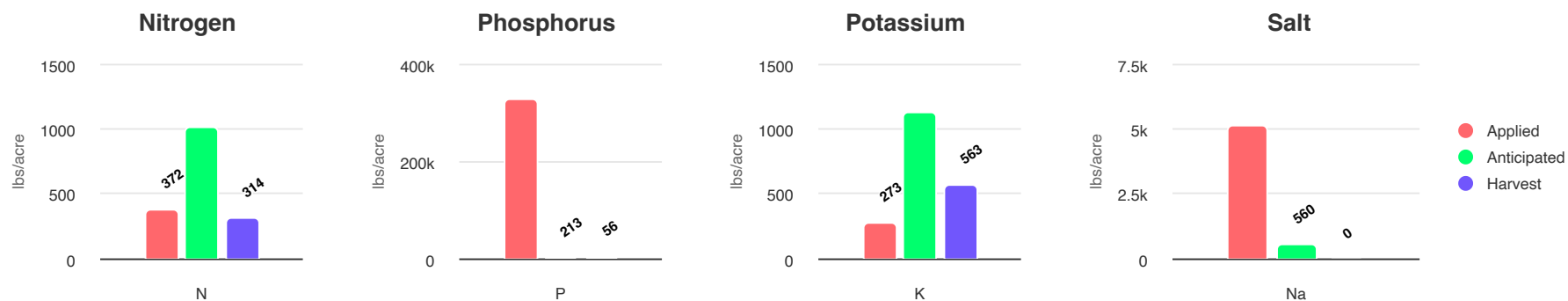
1 harvests

Field name: 5

Crop: Corn Silage

Plant date: 05/01/2023

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	53.09	0.00	0.00	0.00
Dry manure	181.97	48.68	100.43	2,492.80
Process wastewater	107.64	326,226.06	166.59	1,406.07
Fresh water	15.30	0.00	5.85	1,205.62
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	372.00	326,274.74	272.87	5,104.49
Anticipated crop nutrient removal	1,008.00	212.80	1,120.00	560.00
Actual crop nutrient removal	313.72	56.14	562.81	0.00
Nutrient balance	58.29	326,218.60	-289.93	5,104.49
Applied to removed ratio	1.19	5,811.89	0.48	0.00

Fresh water applied

83,471,730.53 gallons
 3,073.98 acre-inches
 39.41 inches/acre

Process wastewater applied

4,727,452.62 gallons
 174.10 acre-inches
 2.23 inches/acre

Total Harvests for the crop

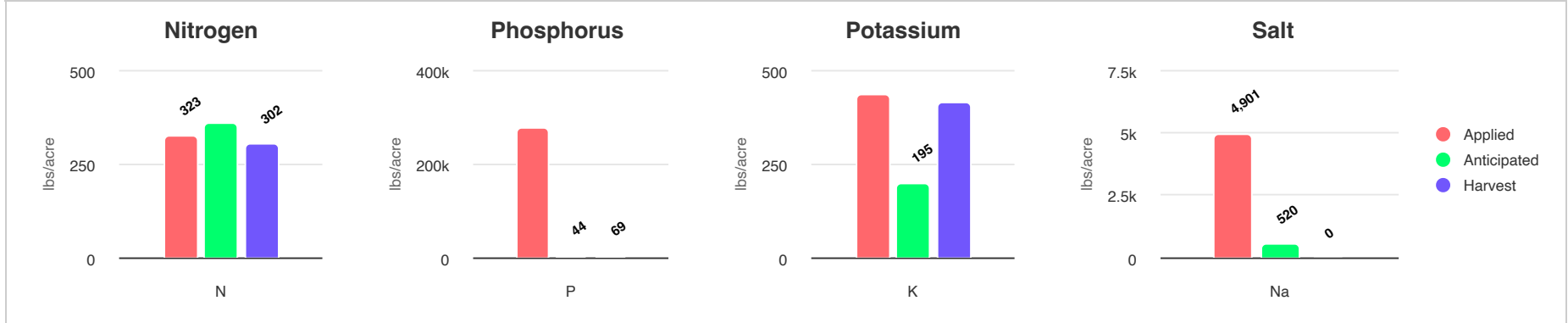
1 harvests

Field name: 5

Crop: Triticale

Plant date: 11/10/2022

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	215.26	58.92	233.44	2,915.84
Process wastewater	96.90	275,076.20	196.68	1,013.89
Fresh water	10.37	0.00	2.70	971.24
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	322.53	275,135.12	432.82	4,900.97
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	301.54	68.57	413.79	0.00
Nutrient balance	20.99	275,066.55	19.03	4,900.97
Applied to removed ratio	1.07	4,012.49	1.05	0.00

Fresh water applied

62,249,027.11 gallons
 2,292.42 acre-inches
 29.39 inches/acre

Process wastewater applied

7,099,651.02 gallons
 261.46 acre-inches
 3.35 inches/acre

Total Harvests for the crop

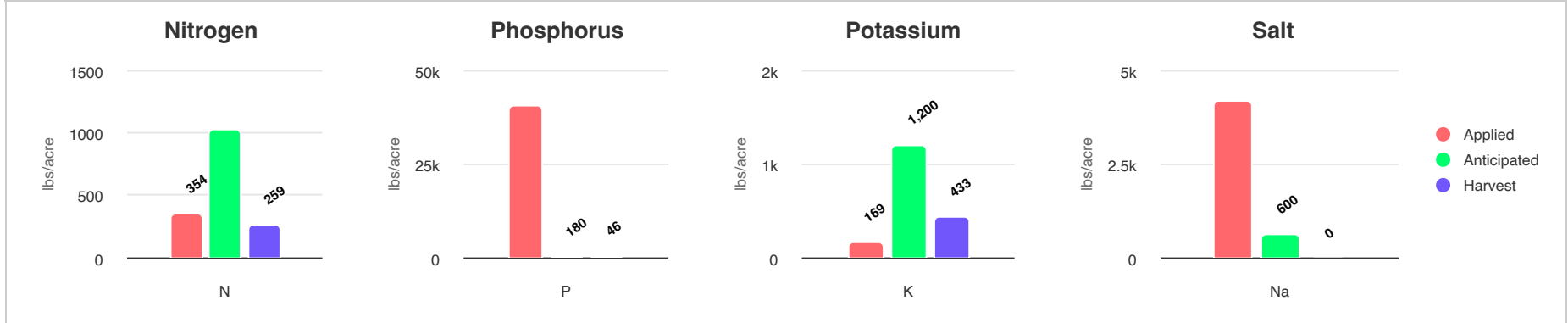
1 harvests

Field name: 6

Crop: Corn, Early Silage

Plant date: 03/25/2023

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	94.10	8.64	8.64	0.00
Dry manure	218.37	58.41	120.52	2,991.36
Process wastewater	14.36	40,272.71	35.06	156.54
Fresh water	12.88	0.00	4.91	1,014.56
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	353.71	40,339.76	169.13	4,162.46
Anticipated crop nutrient removal	1,020.00	180.00	1,200.00	600.00
Actual crop nutrient removal	259.40	45.76	432.76	0.00
Nutrient balance	94.31	40,294.00	-263.63	4,162.46
Applied to removed ratio	1.36	881.47	0.39	0.00

Fresh water applied

70,244,606.71 gallons
 2,586.87 acre-inches
 33.16 inches/acre

Process wastewater applied

1,330,125.57 gallons
 48.98 acre-inches
 0.63 inches/acre

Total Harvests for the crop

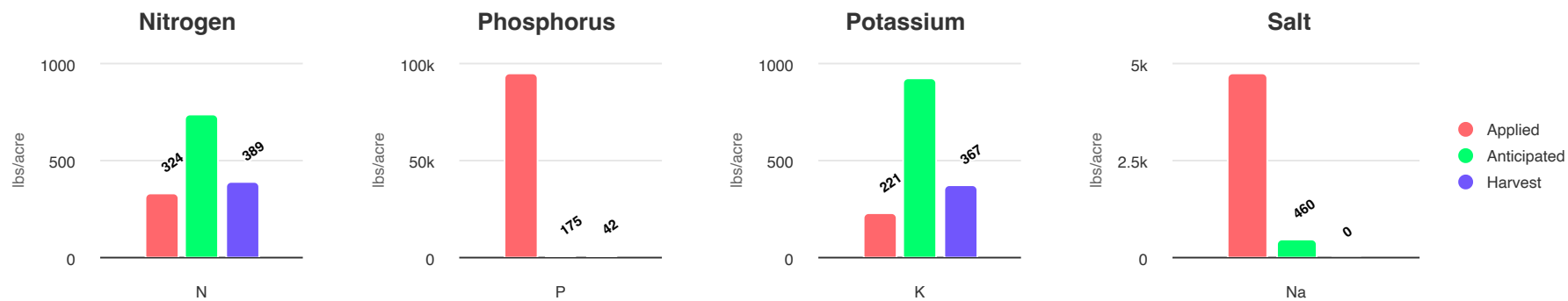
1 harvests

Field name: 6

Crop: Corn, Late Silage

Plant date: 08/01/2023

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	53.09	0.00	0.00	0.00
Dry manure	196.03	61.78	177.18	3,053.20
Process wastewater	46.11	94,251.93	37.86	534.49
Fresh water	14.63	0.00	5.59	1,151.43
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	323.86	94,313.71	220.63	4,739.12
Anticipated crop nutrient removal	736.00	174.80	920.00	460.00
Actual crop nutrient removal	388.63	42.36	366.98	0.00
Nutrient balance	-64.77	94,271.35	-146.35	4,739.12
Applied to removed ratio	0.83	2,226.58	0.60	0.00

Fresh water applied

79,720,694.04 gallons
 2,935.84 acre-inches
 37.64 inches/acre

Process wastewater applied

2,230,290.16 gallons
 82.13 acre-inches
 1.05 inches/acre

Total Harvests for the crop

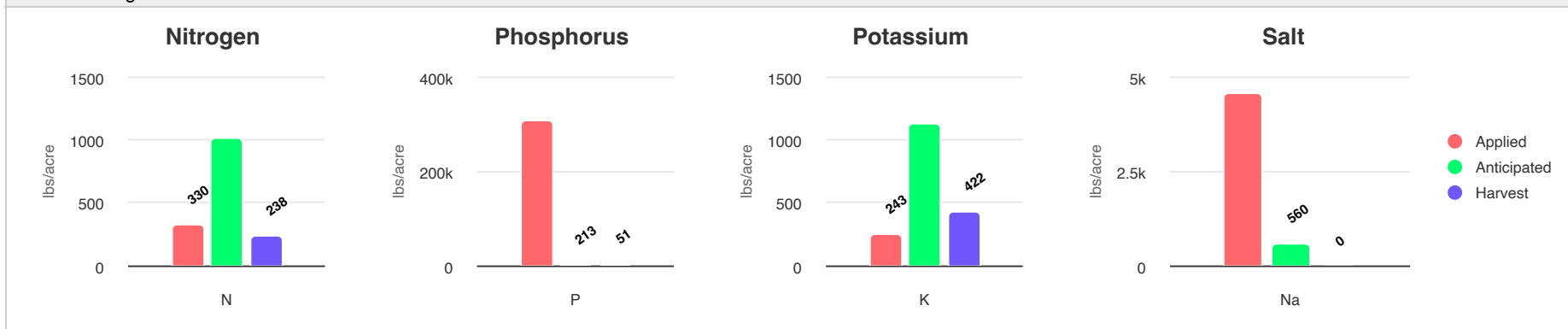
1 harvests

Field name: 7

Crop: Corn Silage

Plant date: 05/01/2023

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	53.09	0.00	0.00	0.00
Dry manure	145.58	38.94	80.35	1,994.24
Process wastewater	101.56	307,810.07	157.19	1,326.69
Fresh water	15.40	0.00	5.88	1,213.25
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	329.63	307,849.01	243.42	4,534.18
Anticipated crop nutrient removal	1,008.00	212.80	1,120.00	560.00
Actual crop nutrient removal	237.54	51.07	421.64	0.00
Nutrient balance	92.09	307,797.94	-178.22	4,534.18
Applied to removed ratio	1.39	6,027.76	0.58	0.00

Fresh water applied

150,771,454.79 gallons
 5,552.40 acre-inches
 39.66 inches/acre

Process wastewater applied

8,006,169.59 gallons
 294.84 acre-inches
 2.11 inches/acre

Total Harvests for the crop

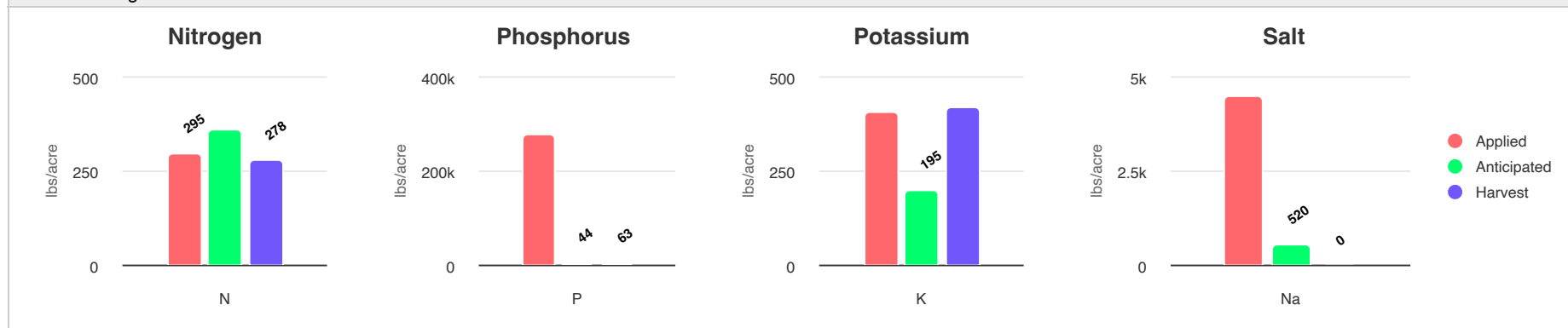
1 harvests

Field name: 7

Crop: Triticale

Plant date: 11/10/2022

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	188.35	51.55	204.26	2,551.36
Process wastewater	96.90	275,076.20	196.68	1,013.89
Fresh water	9.46	0.00	2.44	887.79
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	294.71	275,127.75	403.38	4,453.04
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	277.80	63.10	417.42	0.00
Nutrient balance	16.91	275,064.65	-14.04	4,453.04
Applied to removed ratio	1.06	4,360.20	0.97	0.00

Fresh water applied

102,038,744.57 gallons
 3,757.74 acre-inches
 26.84 inches/acre

Process wastewater applied

12,742,963.37 gallons
 469.28 acre-inches
 3.35 inches/acre

Total Harvests for the crop

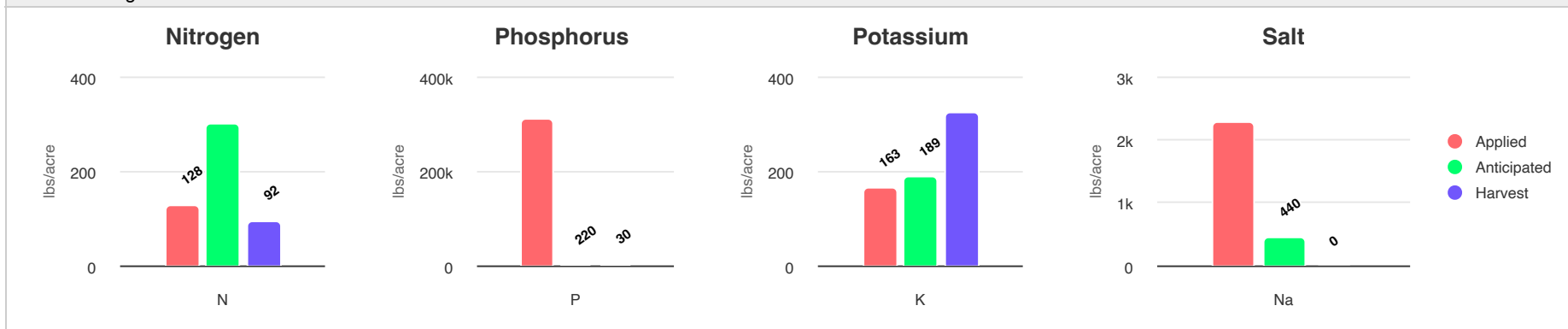
1 harvests

Field name: 8

Crop: Milo

Plant date: 05/01/2023

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	0.00	0.00	0.00	0.00
Process wastewater	102.47	310,587.08	158.61	1,338.66
Fresh water	11.85	0.00	4.54	934.03
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	128.32	310,587.08	163.15	2,272.69
Anticipated crop nutrient removal	299.20	220.00	189.20	440.00
Actual crop nutrient removal	92.15	29.89	324.10	0.00
Nutrient balance	36.17	310,557.19	-160.95	2,272.69
Applied to removed ratio	1.39	10,390.12	0.50	0.00

Fresh water applied

24,873,054.06 gallons
 915.99 acre-inches
 30.53 inches/acre

Process wastewater applied

1,731,085.71 gallons
 63.75 acre-inches
 2.13 inches/acre

Total Harvests for the crop

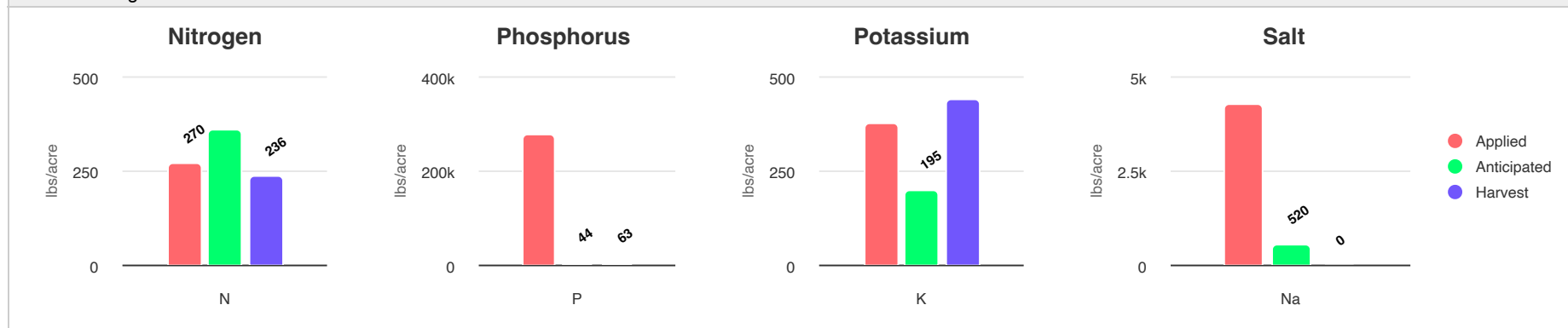
1 harvests

Field name: 8

Crop: Triticale

Plant date: 11/10/2022

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	161.44	44.19	175.08	2,186.88
Process wastewater	96.90	275,076.20	196.68	1,013.89
Fresh water	11.64	0.00	3.30	1,056.25
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	269.98	275,120.39	375.06	4,257.02
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	235.84	63.39	439.02	0.00
Nutrient balance	34.14	275,057.00	-63.96	4,257.02
Applied to removed ratio	1.14	4,340.14	0.85	0.00

Fresh water applied

26,387,448.74 gallons
 971.76 acre-inches
 32.39 inches/acre

Process wastewater applied

2,730,635.01 gallons
 100.56 acre-inches
 3.35 inches/acre

Total Harvests for the crop

1 harvests

NUTRIENT ANALYSES

A. MANURE ANALYSES

T3090020A

Sample and source description name: T3090020A

Sample date: 03/17/2023 Material type: Corral solids Source of analysis: Lab Analysis Method of reporting: As-is

Moisture: 34.4%

	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	27,740.00	7,420.00	15,310.00	20,320.00	10,710.00	3,640.00	3,900.00	1,369.00	15,310.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3167040A

Sample and source description name: T3167040A

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

Moisture: 10.2%

	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	21,830.00	6,880.00	19,730.00	16,860.00	7,790.00	6,010.00	4,100.00	1,307.00	19,730.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3263094A

Sample and source description name: T3263094A

Sample date: 09/15/2023 Material type: Corral solids Source of analysis: Lab Analysis Method of reporting: As-is

Moisture: 15%

	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	25,200.00	7,270.00	20,310.00	18,700.00	8,600.00	5,540.00	8,790.00	1,385.00	20,310.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3362029A

Sample and source description name: T3362029A

Sample date: 12/22/2023 Material type: Corral solids Source of analysis: Lab Analysis Method of reporting: As-is

Moisture:

39%

	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	21,350.00	9,510.00	20,520.00	14,210.00	5,670.00	5,440.00	5,230.00	1,122.00	20,520.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

B. PROCESS WASTEWATER ANALYSES

T3089033A

Sample and source description name: T3089033A

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	100.80	0.00	53.20	0.09	28.30	246.34	87.63	38.30	122.45	0.00	0.00	80.57	88.94	1.55	1,100.00
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

T3167028A

Sample and source description name: T3167028A

Sample date: 06/12/2023 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	212.80	0.00	159.60	0.00	64.50	329.40	128.18	70.30	142.78	0.00	0.00	143.19	120.23	3.13	2,780.00
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

T3263061A

Sample and source description name: T3263061A

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	193.20	0.00	140.00	0.07	39.50	158.65	69.91	39.20	111.59	0.00	0.00	100.62	112.79	2.81	2,240.00
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

T3362085A

Sample and source description name: T3362085A

Sample date: 12/22/2023 Material type: Process wastewater Source of analysis: Lab Analysis pH: 0

	Kjeldahl-N (mg/L)	NH ₄ -N (mg/L)	NH ₃ -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	358.40	0.00	235.20	0.05	75.40	336.55	130.63	67.07	156.27	0.00	0.00	208.05	191.79	4.24	3,740.00
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

3E

T3228029A

Sample and source description name: T3228029A

Sample date: 08/14/2023 Source of analysis: Lab Analysis

	Total N (mg/L)	NH ₄ -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	2.91	0.00	2.91	24.26	1.01	48.23	0.00	0.00	33.38	43.44	0.40	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

4

T3228029B

Sample and source description name: T3228029B

Sample date: 08/14/2023 Source of analysis: Lab Analysis

	Total N (mg/L)	NH ₄ -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	2.81	0.00	2.81	10.53	0.04	48.20	0.00	0.00	41.06	37.84	0.41	130.00
DL	0.50	0.50	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

5E

T3228029C

Sample and source description name:		T3228029C										
Sample date:		08/14/2023		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	1.23	0.00	1.23	4.50	0.01	50.31	0.00	0.00	26.93	34.82	0.29	135.00
DL	0.50	0.50	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

7E

T3228029D												
Sample and source description name:		T3228029D										
Sample date:		08/14/2023		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	2.19	0.00	2.19	10.16	0.04	48.29	0.00	0.00	36.60	33.78	0.32	135.00
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

3 - 01/01/2023: Alfalfa

T3167019A

Sample description: T3167019A

Sample date: 06/09/2023

Mositure: 0%

Source of analysis: Lab Analysis

Method of reporting: Dry

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	29,510.00	2,340.00	22,630.00	720.00	0.00
DL	100.00	200.00	500.00		0.10

8 - 11/01/2022: Triticale

T3139020E

Sample
description: T3139020E

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	17,040.00	4,580.00	31,720.00	210.00	0.00
DL	100.00	200.00	500.00		0.10

2A - 11/01/2022: Triticale

T3139020A

Sample
description: T3139020A

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	16,870.00	4,790.00	26,410.00	600.00	0.00
DL	100.00	200.00	500.00		0.10

7 - 11/01/2022: Triticale

T3139020D

Sample
description: T3139020D

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	17,390.00	3,950.00	26,130.00	200.00	0.00
DL	100.00	200.00	500.00		0.10

2B - 11/01/2022: Triticale

T3139020B

Sample description: T3139020B
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	16,200.00	3,830.00	20,240.00	460.00	0.00
DL	100.00	200.00	500.00		0.10

5 - 11/01/2022: Triticale

T3139020C

Sample description: T3139020C
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	17,810.00	4,050.00	24,440.00	230.00	0.00
DL	100.00	200.00	500.00		0.10

1A - 03/20/2023: Corn, Early Silage

T3228045A

Sample description: T3228045A

Sample date: 08/11/2023 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	14,100.00	2,580.00	23,040.00	130.00	0.00
DL	100.00	200.00	500.00		0.10

1B - 03/20/2023: Corn, Early Silage

T3228045B

Sample description: T3228045B

Sample date: 08/11/2023 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	13,600.00	2,580.00	17,910.00	70.00	0.00
DL	100.00	200.00	500.00		0.10

4 - 03/20/2023: Corn, Early Silage

T3228045C

Sample description: T3228045C

Sample date: 08/11/2023 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	9,500.00	2,590.00	16,440.00	100.00	0.00
DL	100.00	200.00	500.00		0.10

8 - 04/15/2023: Milo

T3263068A

Sample description: T3263068A

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	8,200.00	2,660.00	28,840.00	150.00	0.00
DL	100.00	200.00	500.00		0.10

2A - 04/15/2023: Corn Silage

T3263068B

Sample description: T3263068B

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	13,900.00	2,610.00	25,470.00	50.00	0.00
DL	100.00	200.00	500.00		0.10

7 - 04/15/2023: Corn Silage

T3263068E

Sample description: T3263068E

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	12,000.00	2,580.00	21,300.00	60.00	0.00
DL	100.00	200.00	500.00		0.10

2B - 04/15/2023: Corn Silage

T3263068C

Sample description: T3263068C
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	13,400.00	2,700.00	27,500.00	40.00	0.00
DL	100.00	200.00	500.00		0.10

5 - 04/15/2023: Corn Silage

T3263068D

Sample description: T3263068D
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	13,300.00	2,380.00	23,860.00	40.00	0.00
DL	100.00	200.00	500.00		0.10

6 - 07/25/2023: Corn, Late Silage

T3342019A

Sample description: T3342019A

Sample date: 11/20/2023Source of analysis: Lab AnalysisMethod of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	20,460.00	2,230.00	19,320.00	0.01	0.00
DL	100.00	200.00	500.00		0.10

F. SUBSURFACE (TILE) DRAINAGE ANALYSES

No subsurface (tile) drainage analyses entered.

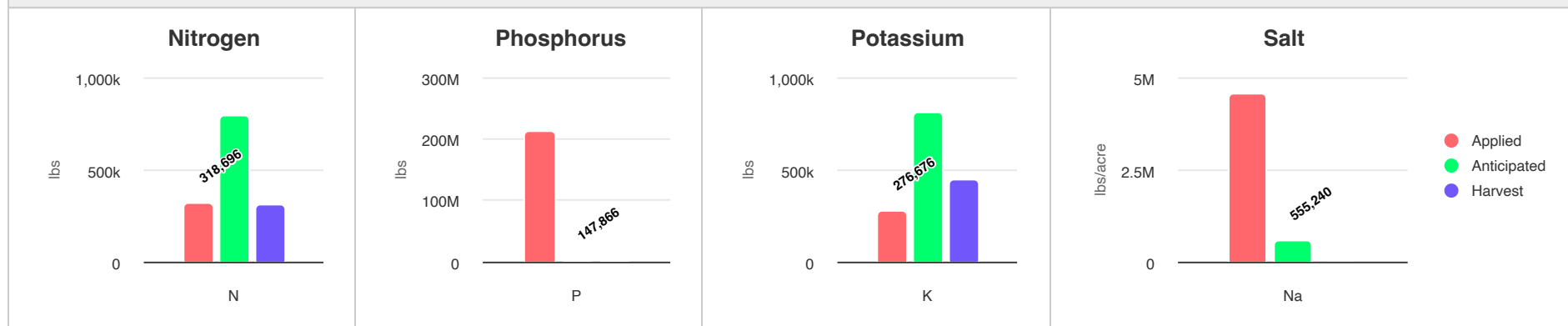
NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

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

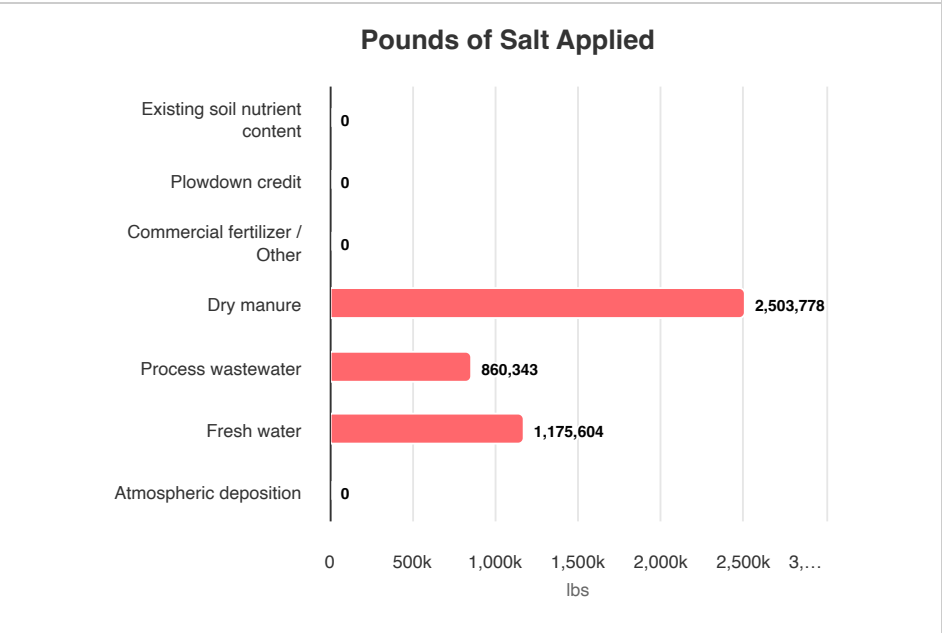
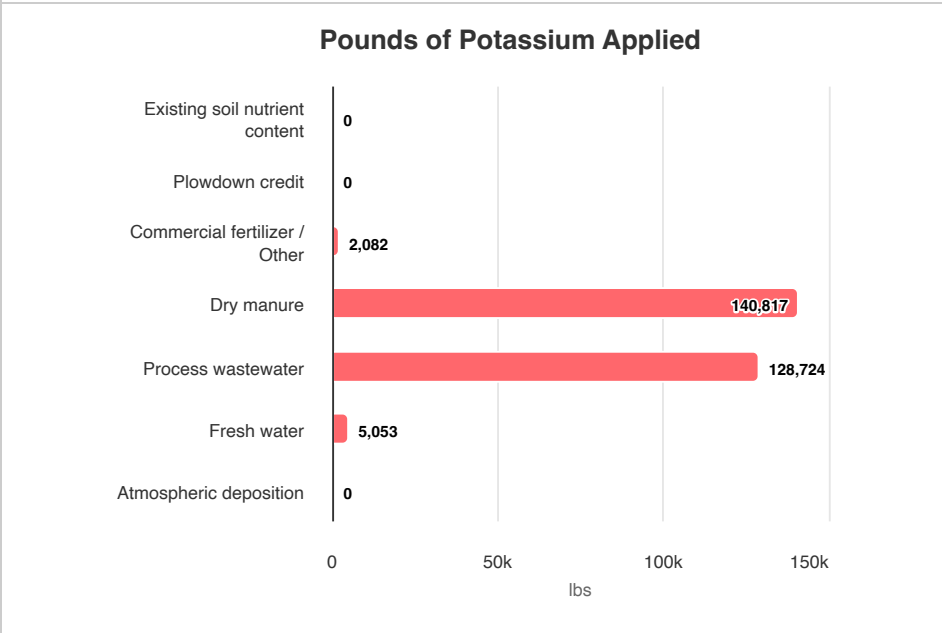
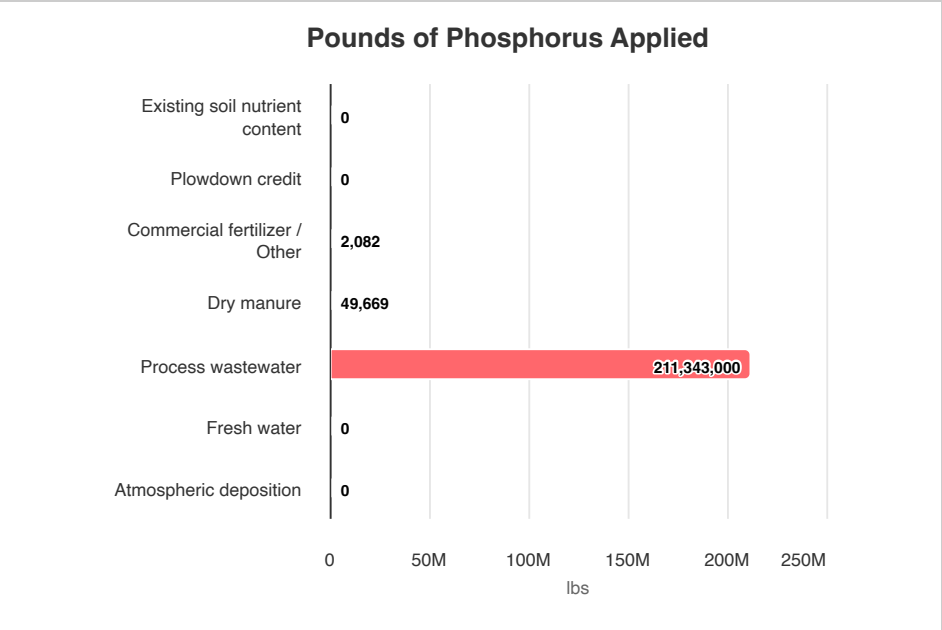
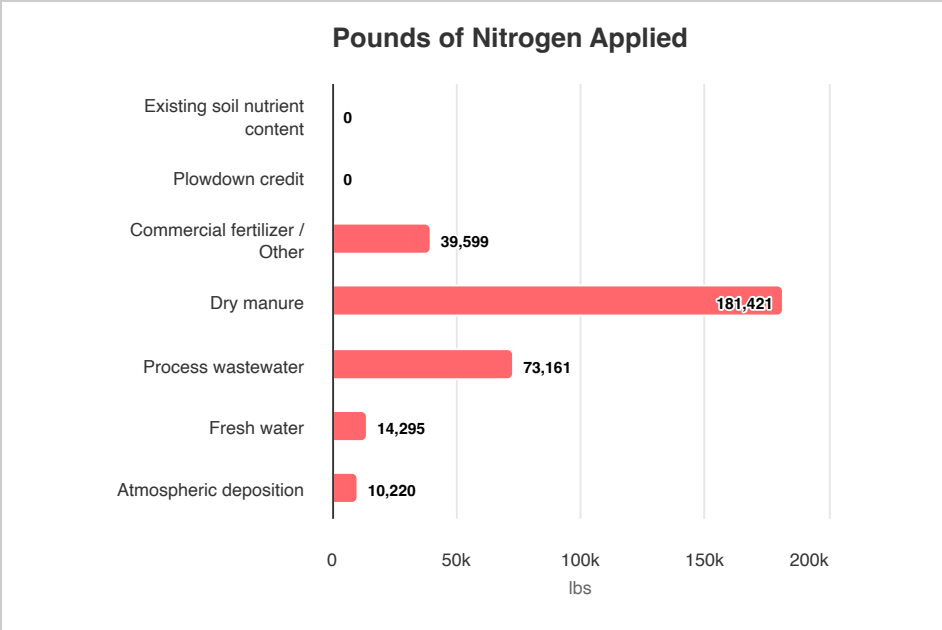
	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	39,599.39	2,082.24	2,082.24	0.00
Dry manure	181,421.10	49,668.71	140,816.68	2,186.88
Process wastewater	73,160.56	211,342,999.89	128,724.27	1,013.89
Fresh water	14,294.66	0.00	5,052.73	1,056.25
Atmospheric deposition	10,220.00	0.00	0.00	0.00
Total nutrients applied	318,695.71	211,394,750.84	276,675.92	4,539,724.95
Anticipated crop nutrient removal	793,268.40	147,865.80	810,243.00	555,240.00
Actual crop nutrient removal	307,109.87	57,818.61	446,740.81	0.00
Nutrient balance	11,585.84	211,336,932.24	-170,064.89	4,539,724.95
Applied to removed ratio	1.04	3,656.17	0.62	0.00

B. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL

Nutrient budgets in lbs/acre



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

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?	<u>No</u>
---	-----------

ADDITIONAL NOTES

A. NOTES

Well Specific Notes

2023 Non Op Wells: 103W, AJB Filter

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

AJ Bos

PRINT OR TYPE NAME

6/29/2024

DATE



SIGNATURE OF OPERATOR OF FACILITY

AJ Bos

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 PDF/A 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: AJ Bos
Facility Name: AJB Ranch Dairy
Facility Address: 2874 Stockdale Hwy.
Facility City/State: Bakersfield, CA 93312

Contact:

Name: AJ Bos
Number: (661) 396-9600

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: R & M Farm Service Inc.
Facility Address: 2312 Alpine Meadows Ct.
Facility City/State: Wasco, CA 93280

Contact:

Name: Mike Martin
Number: (661) 667-3931

Manure Destination Spreader

Destination Information:

Name: Buttonwillow Land & Cattle
Facility Address: 7540 Tracy Ave
Facility City/State: Buttonwillow, CA

Contact:

Name: Rob Tracy
Number: (661) 487-6018

Signature of Owner:



Date:

12/30/2023

Dates Hauled / Transferred	Amount Hauled / Transferred	Units	Moisture %
Apr 1, 2023 - Apr, 30 2023	6,920	ton	65 %
Total	6,920		

Signature of Hauler:



Date:

12/30/2023

Solid/Liquid Manure Tracking Manifest

Waste Generator Information:

Name: AJ Bos
Facility Name: AJB Ranch Dairy
Facility Address: 2874 Stockdale Hwy.
Facility City/State: Bakersfield, CA 93312

Contact:

Name: AJ Bos
Number: (661) 396-9600

Manure Hauler / Processor Information:

Name: R & M Farm Service Inc.
Facility Address: 2312 Alpine Meadows Ct.
Facility City/State: Wasco, CA 93280

Contact:

Name: Mike Martin
Number: (661) 667-3931

Manure Destination Broker

Destination Information:

Name: R&M Manure
Facility Address: 2312 Alpine Meadows Ct
Facility City/State: Wasco, CA

Contact:

Name: Mike
Number: (661) 667-3931

Dates Hauled / Transferred	Amount Hauled / Transferred	Units	Moisture %
Mar 1, 2023 - Mar, 31 2023	5,900	ton	67 %
Jul 1, 2023 - Jul, 31 2023	10,075	ton	64 %
Oct 1, 2023 - Oct, 31 2023	8,219	ton	65 %
Total	24,194		

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.

Signature of Owner:



Date:

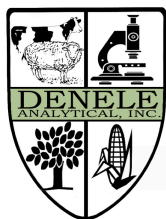
12/30/2023

Signature of Hauler:



Date:

12/30/2023

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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

AJB
15857 Bear Mountain Blvd.
Bakersfield, CA 93311

Grower**Consultant:**

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

PURCHASE ORDER:

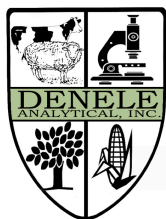
RECEIVED DATE: 8/16/23 10:00 AM
SUBMITTED BY: Courier
ANALYZED DATE: 8/17/23

Boron (B)
SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
3E	T3228029A	Boron (B)	EPA 200.7	0.137	ppm

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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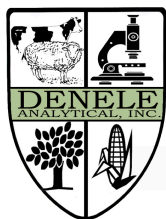
Irrigation /Ground Water (H14)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
3E	T3228029A	Electrical Conductivity (EC)	EPA 120.1 and	0.401	mmhos/cm
		Bicarbonate Alkalinity (ALK-B)	SM 2320B-2011	56.0	mg/L
		Carbonate Alkalinity (Carb)	SM 2320B-2011	< 2.00	mg/L
		Sulfate (SO ₄)	EPA 375.2	33.4	mg/L
		Sodium (Na)	EPA 200.7	48.2	mg/L
		Ammonia Nitrogen (NH ₃ -N)	SM 4500-NH ₃ D,C	< 0.500	mg/L
		Magnesium (Mg)	EPA 200.7	1.01	mg/L
		Nitrate Nitrogen (NO ₃ -N)	EPA 353.2	2.91	mg/L
		Total Dissolved Solids (TDS)	SM 2540 C-1997 and	175	mg/L
		Calcium (Ca)	EPA 200.7	24.3	mg/L
		Chloride (Cl)	SM 4500-Cl D-2011	43.4	mg/L
		Soluble Salts (SALT-SOL)	Calculation	257	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	Sample mg/L	Dup mg/L	RPD %
Ammonia Nitrogen (NH ₃ -N)	97.6	101 (T3228024C)	98.8 (T3228024C)			1.80
Calcium (Ca)	95.3	103 (T3228029B)	112 (T3228029B)			8.90
Chloride (Cl)	103	99.6 (T3228024C)	98.1 (T3228024C)			1.56
Magnesium (Mg)	95.1	94.5 (T3228029B)	105 (T3228029B)			10.5
Nitrate Nitrogen (NO ₃ -N)	103	97.1 (T3228024C)	94.4 (T3228024C)			2.88
Sodium (Na)	98.5	102 (T3228029B)	117 (T3228029B)			13.5
Sulfate (SO ₄)	102	114 (T3228024C)	105 (T3228024C)			7.89
Total Dissolved Solids (TDS)	99.5			115 (T3230006A)	120 (Dup)	4.26

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Bakersfield, CA 93312

PURCHASE ORDER:

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ANALYZED DATE: 8/18/23

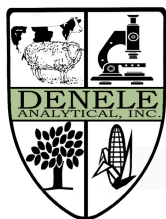
pH (pH)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
3E	T3228029A	pH (pH)	SM4500-H+ B-2000	8.2	S.U.

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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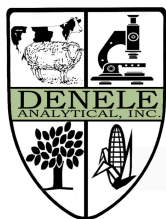
RECEIVED DATE: 8/16/23 10:00 AM
SUBMITTED BY: Courier
ANALYZED DATE: 8/22/23

Total Nitrogen (TN)
SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
3E	T3228029A	Total Nitrogen (TN)	SM 4500-NH3 D,C	2.91	%

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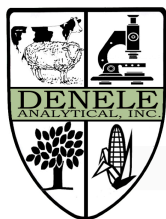
Boron (B)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
4	T3228029B	Boron (B)	EPA 200.7	0.068	ppm

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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SUBMITTED BY: Courier

ANALYZED DATE: 8/17/23

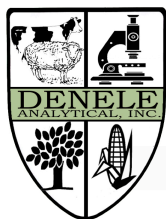
Irrigation /Ground Water (H14)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
4	T3228029B	Electrical Conductivity (EC)	EPA 120.1 and	0.415	mmhos/cm
		Bicarbonate Alkalinity (ALK-B)	SM 2320B-2011	34.0	mg/L
		Carbonate Alkalinity (Carb)	SM 2320B-2011	< 2.00	mg/L
		Sulfate (SO ₄)	EPA 375.2	41.1	mg/L
		Sodium (Na)	EPA 200.7	48.2	mg/L
		Ammonia Nitrogen (NH ₃ -N)	SM 4500-NH ₃ D,C	< 0.500	mg/L
		Magnesium (Mg)	EPA 200.7	< 0.500	mg/L
		Nitrate Nitrogen (NO ₃ -N)	EPA 353.2	2.81	mg/L
		Total Dissolved Solids (TDS)	SM 2540 C-1997 and	130	mg/L
		Calcium (Ca)	EPA 200.7	10.5	mg/L
		Chloride (Cl)	SM 4500-Cl D-2011	37.8	mg/L
		Soluble Salts (SALT-SOL)	Calculation	265	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	Sample mg/L	Dup mg/L	RPD %
Ammonia Nitrogen (NH ₃ -N)	97.6	101 (T3228024C)	98.8 (T3228024C)			1.80
Calcium (Ca)	95.3	103 (T3228029B)	112 (T3228029B)			8.90
Chloride (Cl)	103	99.6 (T3228024C)	98.1 (T3228024C)			1.56
Magnesium (Mg)	95.1	94.5 (T3228029B)	105 (T3228029B)			10.5
Nitrate Nitrogen (NO ₃ -N)	103	97.1 (T3228024C)	94.4 (T3228024C)			2.88
Sodium (Na)	98.5	102 (T3228029B)	117 (T3228029B)			13.5
Sulfate (SO ₄)	102	114 (T3228024C)	105 (T3228024C)			7.89
Total Dissolved Solids (TDS)	99.5			115 (T3230006A)	120 (Dup)	4.26

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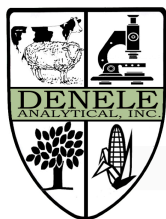
pH (pH)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
4	T3228029B	pH (pH)	SM4500-H+ B-2000	7.9	S.U.

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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40 N. East Street, Woodland, CA 95776
Phone (530) 666-9056 - Fax (530) 666-9058

Compliance Analysis Report

Customer

AJB
15857 Bear Mountain Blvd.
Bakersfield, CA 93311

Grower**Consultant:**

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

PURCHASE ORDER:

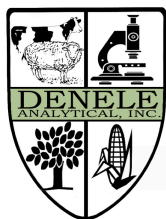
RECEIVED DATE: 8/16/23 10:00 AM
SUBMITTED BY: Courier
ANALYZED DATE: 8/22/23

Total Nitrogen (TN)
SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
4	T3228029B	Total Nitrogen (TN)	SM 4500-NH3 D,C	2.81	%

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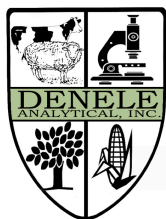
Boron (B)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
5E	T3228029C	Boron (B)	EPA 200.7	0.090	ppm

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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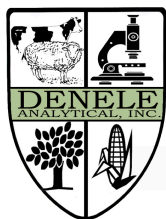
RECEIVED DATE: 8/16/23 10:00 AM
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Irrigation /Ground Water (H14)
SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
5E	T3228029C	Electrical Conductivity (EC)	EPA 120.1 and	0.290	mmhos/cm
		Bicarbonate Alkalinity (ALK-B)	SM 2320B-2011	38.0	mg/L
		Carbonate Alkalinity (Carb)	SM 2320B-2011	< 2.00	mg/L
		Sulfate (SO ₄)	EPA 375.2	26.9	mg/L
		Sodium (Na)	EPA 200.7	50.3	mg/L
		Ammonia Nitrogen (NH ₃ -N)	SM 4500-NH ₃ D,C	< 0.500	mg/L
		Magnesium (Mg)	EPA 200.7	< 0.500	mg/L
		Nitrate Nitrogen (NO ₃ -N)	EPA 353.2	1.23	mg/L
		Total Dissolved Solids (TDS)	SM 2540 C-1997 and	135	mg/L
		Calcium (Ca)	EPA 200.7	4.50	mg/L
		Chloride (Cl)	SM 4500-Cl D-2011	34.8	mg/L
		Soluble Salts (SALT-SOL)	Calculation	186	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	Sample mg/L	Dup mg/L	RPD %
Ammonia Nitrogen (NH ₃ -N)	97.6	101 (T3228024C)	98.8 (T3228024C)			1.80
Calcium (Ca)	98.2					
Chloride (Cl)	103	99.6 (T3228024C)	98.1 (T3228024C)			1.56
Magnesium (Mg)	99.4					
Nitrate Nitrogen (NO ₃ -N)	103	97.1 (T3228024C)	94.4 (T3228024C)			2.88
Sodium (Na)	102					
Sulfate (SO ₄)	102	114 (T3228024C)	105 (T3228024C)			7.89
Total Dissolved Solids (TDS)	99.5			115 (T3230006A)	120 (Dup)	4.26

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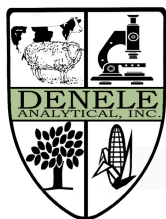
pH (pH)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
5E	T3228029C	pH (pH)	SM4500-H+ B-2000	8.3	S.U.

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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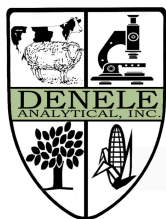
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Total Nitrogen (TN)
SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
5E	T3228029C	Total Nitrogen (TN)	SM 4500-NH3 D,C	< 1.50	%

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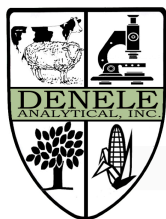
Boron (B)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
7E	T3228029D	Boron (B)	EPA 200.7	0.090	ppm

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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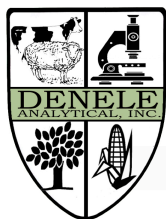
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Irrigation /Ground Water (H14)
SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
7E	T3228029D	Electrical Conductivity (EC)	EPA 120.1 and	0.325	mmhos/cm
		Bicarbonate Alkalinity (ALK-B)	SM 2320B-2011	40.0	mg/L
		Carbonate Alkalinity (Carb)	SM 2320B-2011	< 2.00	mg/L
		Sulfate (SO ₄)	EPA 375.2	36.6	mg/L
		Sodium (Na)	EPA 200.7	48.3	mg/L
		Ammonia Nitrogen (NH ₃ -N)	SM 4500-NH ₃ D,C	< 0.500	mg/L
		Magnesium (Mg)	EPA 200.7	< 0.500	mg/L
		Nitrate Nitrogen (NO ₃ -N)	EPA 353.2	2.19	mg/L
		Total Dissolved Solids (TDS)	SM 2540 C-1997 and	135	mg/L
		Calcium (Ca)	EPA 200.7	10.2	mg/L
		Chloride (Cl)	SM 4500-Cl D-2011	33.8	mg/L
		Soluble Salts (SALT-SOL)	Calculation	208	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	Sample mg/L	Dup mg/L	RPD %
Ammonia Nitrogen (NH ₃ -N)	97.6	101 (T3228024C)	98.8 (T3228024C)			1.80
Calcium (Ca)	98.2					
Chloride (Cl)	103	99.6 (T3228024C)	98.1 (T3228024C)			1.56
Magnesium (Mg)	99.4					
Nitrate Nitrogen (NO ₃ -N)	103	97.1 (T3228024C)	94.4 (T3228024C)			2.88
Sodium (Na)	102					
Sulfate (SO ₄)	102	114 (T3228024C)	105 (T3228024C)			7.89
Total Dissolved Solids (TDS)	99.5			115 (T3230006A)	120 (Dup)	4.26

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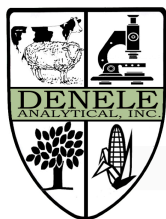
pH (pH)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
7E	T3228029D	pH (pH)	SM4500-H+ B-2000	7.7	S.U.

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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Total Nitrogen (TN)
SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
7E	T3228029D	Total Nitrogen (TN)	SM 4500-NH3 D,C	2.19	%

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

Denale

AJB Ranch Dairy

Ranch: A.J.B. 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

1.	Location:				 23-Q3	CHAIN	AJB Ranch Dairy
Analysis	Weather	Temp (°F)	# of Bags/Bottles	3E W		Ranch: A.J.B. RANCH Date: 8-14-2023 7:00 am IW No Lat/Lng	
W2	SW	74	1				
2.	Location:				 23-Q3	CHAIN	AJB Ranch Dairy
Analysis	Weather	Temp (°F)	# of Bags/Bottles	4 W		Ranch: A.J.B. RANCH Date: 8-14-2023 7:20 am IW 35.365955, -119.332308	
W2	SW	74	1				
3.	Location:				 23-Q3	CHAIN	AJB Ranch Dairy
Analysis	Weather	Temp (°F)	# of Bags/Bottles	5E W		Ranch: A.J.B. RANCH Date: 8-14-2023 7:30 am IW 35.362250, -119.332574	
W2	SW	74	1				
4.	Location:				 23-Q3	CHAIN	AJB Ranch Dairy
Analysis	Weather	Temp (°F)	# of Bags/Bottles	7E W		Ranch: A.J.B. RANCH Date: 8-14-2023 7:40 am IW 35.366031, -119.341472	
W2	SW	74	1				
5.	Location:				 23-Q3	CHAIN	AJB Ranch Dairy
Analysis	Weather	Temp (°F)	# of Bags/Bottles	Place CHAIN Label Here Place additional labels on sample bags/bottles			
W2	SW	74	1				
6.	Location:				 23-Q3	CHAIN	AJB Ranch Dairy
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						
4th						

T3228029