

DAIRY FACILITY INFORMATION

A. NAME OF DAIRY OR BUSINESS OPERATING THE DAIRY:

Faial Farms 2

Physical address of dairy:

18683 Magnolia Ave

Number and Street

Shafter

City

Kern

County

93263

Zip Code

Street and nearest cross street (if no address):

Date facility was originally placed in operation:

02-10-2002

Regional Water Quality Control Board Basin Plan designation:

Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

0088-0160-0016-0000 0088-0160-0017-0000 0088-0160-0022-0000 0088-0160-0023-0000

B. OPERATORS

Manuel Rosa Jr.

Operator Name:

Manuel Rosa Jr.

Telephone no.:

(661) 667-1016

Landline

Cellular

P.O. BOX 456

Mailing Address Number and Street

ARVIN

City

Kern

County

93203

Zip Code

C. OWNERS

Manuel Rosa Jr.

Owner Name:

Manuel Rosa Jr.

Telephone no.:

(661) 667-1016

Landline

Cellular

P.O. BOX 456

Mailing Address Number and Street

ARVIN

City

Kern

County

93203

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	367	1,364	855	364	58
Number under roof	2,196	0	0	0	0	0
Maxiumu number	2,200	372	1,388	885	390	60
Average number	2,196	367	1,364	855	364	58
Average live weight (lbs)	1400	1450	1000	750		

Predominant milk cow breed: Holsteins

Average Milk Production: 70 pounds per cow per day

B. MANURE GENERATED

Total manure excreted by the herd: 85,650.32 tons per reporting period

Total nitrogen from manure: 1,035,619.50 lbs per reporting period

After ammonia losses (30% loss applied): 724,933.65 lbs per reporting period

Total phosphorus from manure: 170,687.19 lbs per reporting period

Total potassium from manure: 420,554.26 lbs per reporting period

Total salt from manure: 1,118,378.25 lbs per reporting period

C. PROCESS WASTEWATER GENERATED

Process wastewater generated: 28,395,196.18 gallons

Total nitrogen generated: 144,460.68 lbs

Total phosphorus generated: 124,785,411.98 lbs

Total potassium generated: 165,375.97 lbs

Total salt generated: 1,131,358.77 lbs

	28,395,196.18 gallons applied
+	0 gallons exported
-	0 gallons imported
=	28,395,196.18 gallons generated

D. FRESH WATER SOURCES

Source Description	Type
F2 #1	Ground Water
F2 #2	Ground Water
F2 #3	Ground Water
F2 #4	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 (%)
06/27/2023	Separator solids	6,374 tons	as-is	67.1	23,810.00	5,700.00	8,980.00	19.00
07/31/2023	Separator solids	6,947 tons	as-is	67.6	23,810.00	5,700.00	8,980.00	19.00
08/27/2023	Separator solids	6,170 tons	as-is	65.8	23,810.00	5,700.00	8,980.00	19.00

No process wastewater nutrient exports entered.

Material type	N (lbs)	P (lbs)	K (lbs)	TDS (%)
Dry Manure	928,161.42	222,197.40	350,058.36	7,406,580.00
Process wastewater	0.00	0.00	0.00	0.00
Total exports for all materials	928,161.42	222,197.40	350,058.36	7,406,580.00

APPLICATION AREA

A. LIST OF LAND APPLICATION AREAS

Field name	Controlled acres	Cropable acres	Total harvests	Type of waste applied	Parcel number
221	76.34	76.34	7	PROCESS WASTEWATER	0088-0160-0022-0000
222	74.11	74.11	3	PROCESS WASTEWATER	0088-0160-0022-0000
223	77.72	77.72	2	BOTH	0088-0160-0016-0000
224	75.52	75.52	2	BOTH	0088-0160-0017-0000, 0088-0160-0023-0000
225	74.33	74.33	2	BOTH	0088-0160-0022-0000
226	56.35	56.35	3	BOTH	0088-0160-0022-0000
227	7.17	6.98	2	BOTH	0088-0160-0023-0000
228	21.61	21.61	2	BOTH	0088-0160-0023-0000
Totals for areas that were used for application	463.15	462.96	23.00		
Totals for areas that were not used for application	0.19	0.19			
Land application area totals	463.15	463.15	23.00		

B. CROPS AND HARVESTS

221

Field Name: 221**11/01/2020: Alfalfa**Crop: Alfalfa Acres planted: 76.34 Plant date: 11/01/2020

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
03/27/2023	123.67 ton	As-is		0.00	19,257.90	1,566.30	18,209.10	1,386.90	0.00
05/04/2023	123.67 ton	As-is		0.00	19,257.90	1,566.30	18,209.10	1,386.90	0.00
06/11/2023	123.67 ton	As-is		0.00	19,257.90	1,566.30	18,209.10	1,386.90	0.00
07/19/2023	123.67 ton	As-is		0.00	19,257.90	1,566.30	18,209.10	1,386.90	0.00
08/26/2023	123.67 ton	As-is		0.00	19,257.90	1,566.30	18,209.10	1,386.90	0.00
10/03/2023	123.67 ton	As-is		0.00	19,257.90	1,566.30	18,209.10	1,386.90	0.00
11/10/2023	123.67 ton	As-is		0.00	19,257.90	1,566.30	18,209.10	1,386.90	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	11.34	436.77	35.52	412.98	0.00

Field Name: 222

10/20/2022: Triticale

Crop: Triticale Acres planted: 74.11 Plant date: 10/20/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
04/11/2023	1,564.46 ton	As-is		0.00	7,020.00	1,512.00	20,520.00	0.15	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	26.00	358.80	44.20	195.00	520.00
Total actual harvest content	21.11	296.38	63.84	866.35	0.00

04/21/2023: Corn, Late Silage

Crop: Corn, Late Silage Acres planted: 74.11 Plant date: 04/21/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/12/2023	1,574.10 ton	As-is		0.00	4,506.80	1,048.80	7,980.00	64.60	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	23.00	736.00	174.80	920.00	460.00
Total actual harvest content	21.24	191.45	44.55	338.99	0.00

08/10/2023: Sudan

Crop: Sudan Acres planted: 74.11 Plant date: 08/10/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
11/06/2023	1,202.81 ton	As-is		0.00	3,482.40	729.60	9,616.80	127.20	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	15.00	360.00	66.00	495.00	300.00
Total actual harvest content	16.23	113.04	23.68	312.16	0.00

Field Name: 223

11/05/2022: Triticale

Crop: Triticale Acres planted: 77.72 Plant date: 11/05/2022

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	1,402.85 ton	As-is		0.00	7,128.00	1,692.00	24,480.00	0.12	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	26.00	358.80	44.20	195.00	520.00
Total actual harvest content	18.05	257.32	61.08	883.73	0.00

04/08/2023: Corn, Late Silage

Crop: Corn, Late Silage Acres planted: 77.72 Plant date: 04/08/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/07/2023	1,707.51 ton	As-is		0.00	6,167.40	1,026.00	8,386.60	68.40	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	23.00	736.00	174.80	920.00	460.00
Total actual harvest content	21.97	271.00	45.08	368.51	0.00

Field Name: 224

11/05/2022: Triticale

Crop: Triticale Acres planted: 75.52 Plant date: 11/05/2022

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	1,823.05 ton	As-is		0.00	6,768.00	1,656.00	23,400.00	0.17	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	26.00	358.80	44.20	195.00	520.00
Total actual harvest content	24.14	326.76	79.95	1,129.75	0.00

05/10/2023: Corn, Late Silage

Crop: Corn, Late Silage Acres planted: 75.52 Plant date: 05/10/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/10/2023	1,605.56 ton	As-is		0.00	6,429.60	1,197.00	8,105.40	38.00	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	21.26	273.39	50.90	344.64	0.00

Field Name: 225

11/10/2022: Triticale

Crop: Triticale Acres planted: 74.33 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 (%)
05/15/2023	1,664.99 ton	As-is		0.00	6,660.00	1,656.00	23,040.00	0.13	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	22.40	298.37	74.19	1,032.19	0.00

05/12/2023: Corn, Late Silage

Crop: Corn, Late Silage Acres planted: 74.33 Plant date: 05/12/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/12/2023	1,779.46 ton	As-is		0.00	5,703.80	1,105.80	7,349.20	34.20	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	23.00	736.00	174.80	920.00	460.00
Total actual harvest content	23.94	273.10	52.95	351.88	0.00

Field Name: 226

11/01/2022: Triticale

Crop: Triticale Acres planted: 56.35 Plant date: 11/01/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
04/23/2023	1,402.55 ton	As-is		0.00	7,668.00	1,656.00	23,040.00	0.14	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	26.00	358.80	44.20	195.00	520.00
Total actual harvest content	24.89	381.71	82.44	1,146.93	0.00

06/15/2023: Sudan

Crop: Sudan Acres planted: 56.35 Plant date: 06/15/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
07/20/2023	678.45 ton	As-is		0.00	1,656.00	240.00	1,464.00	0.00	0.77
09/11/2023	442.35 ton	As-is		0.00	1,656.00	240.00	1,464.00	0.00	0.77

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	15.00	360.00	66.00	495.00	300.00
Total actual harvest content	19.89	65.88	9.55	58.24	304.56

Field Name: 227

11/05/2022: Triticale

Crop: Triticale Acres planted: 6.98 Plant date: 11/05/2022

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	145.81 ton	As-is		0.00	7,056.00	1,548.00	21,132.00	0.14	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	26.00	358.80	44.20	195.00	520.00
Total actual harvest content	20.89	294.80	64.68	882.89	0.00

05/13/2023: Corn, Late Silage

Crop: Corn, Late Silage Acres planted: 6.98 Plant date: 05/13/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/14/2023	154.26 ton	As-is		0.00	6,783.00	1,250.20	7,033.80	41.80	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	23.00	736.00	174.80	920.00	460.00
Total actual harvest content	22.10	299.81	55.26	310.89	0.00

Field Name: 228

11/05/2022: Triticale

Crop: Triticale Acres planted: 21.61 Plant date: 11/05/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/10/2023	451.43 ton	As-is		0.00	6,300.00	1,188.00	16,164.00	0.02	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	26.00	358.80	44.20	195.00	520.00
Total actual harvest content	20.89	263.21	49.63	675.33	0.00

05/15/2023: Corn, Late Silage

Crop: Corn, Late Silage Acres planted: 21.61 Plant date: 05/15/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/20/2023	477.58 ton	As-is		0.00	6,372.60	1,174.20	8,113.00	41.80	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	23.00	736.00	174.80	920.00	460.00
Total actual harvest content	22.10	281.67	51.90	358.59	0.00

NUTRIENT BUDGET

A. LAND APPLICATIONS

221

Field name: 221 Crop: Alfalfa Plant date: 11/01/2020

11/01/2020: 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	1,068.76 Lbs
Application event totals		14.00	0.00	0.00	0.00	

02/15/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	17.27	10,946.26	14.97	80.12	172,055.51 gal
Well Water	Ground water	5.15	0.00	1.16	442.34	9,017,367.38 gal
Application event totals		22.42	10,946.26	16.13	522.46	

03/12/2023	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	5.81	0.00	1.30	498.27	10,157,494.71 gal
Application event totals		5.81	0.00	1.30	498.27	

04/04/2023	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	5.86	0.00	1.32	503.35	10,261,142.02 gal
Application event totals		5.86	0.00	1.32	503.35	

05/05/2023	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	5.98	0.00	1.34	513.52	10,468,438.61 gal
Application event totals		5.98	0.00	1.34	513.52	

06/03/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	5.92	0.00	1.33	508.44	10,364,790.32 gal

Application event totals		5.92	0.00	1.33	508.44	
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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	6.10	0.00	1.37	523.69	10,675,734.22 <i>gal</i>
Application event totals		6.10	0.00	1.37	523.69	

08/02/2023	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	7.39	0.00	1.66	634.53	12,935,257.84 <i>gal</i>
Application event totals		7.39	0.00	1.66	634.53	

08/30/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	7.39	0.00	1.66	634.53	12,935,257.84 <i>gal</i>
Application event totals		7.39	0.00	1.66	634.53	

09/27/2023	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	7.18	0.00	1.61	616.23	12,562,125.74 <i>gal</i>
Application event totals		7.18	0.00	1.61	616.23	

11/09/2023	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	6.75	0.00	1.52	579.62	11,815,860.57 <i>gal</i>
Lagoon Water Effluent	Process wastewater	33.58	35,904.04	41.67	312.64	652,981.78 <i>gal</i>
Application event totals		40.33	35,904.04	43.19	892.26	

Field name: 222

Crop: Corn, Late Silage

Plant date: 04/21/2023

04/21/2023: Corn, Late Silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/01/2023	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	1,037.54 <i>Lbs</i>
Application event totals		14.00	0.00	0.00	0.00	

05/03/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	5.86	0.00	1.32	503.35	9,961,400.02 <i>gal</i>
Application event totals		5.86	0.00	1.32	503.35	

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
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	741.10 <i>Gal.</i>
Application event totals		35.39	0.00	0.00	0.00	

05/28/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	72.48	61,068.47	116.73	812.18	1,376,484.45 <i>gal</i>
Well Water	Ground water	5.98	0.00	1.34	513.52	10,162,641.20 <i>gal</i>
Application event totals		78.46	61,068.47	118.07	1,325.70	

06/19/2023	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	6.35	0.00	1.43	544.64	10,778,436.37 <i>gal</i>
Application event totals		6.35	0.00	1.43	544.64	

07/07/2023	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	6.35	0.00	1.43	544.64	10,778,436.37 <i>gal</i>
Application event totals		6.35	0.00	1.43	544.64	

07/23/2023	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
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	741.10 <i>Gal.</i>
Well Water	Ground water	7.29	0.00	1.64	625.38	12,376,285.54 <i>gal</i>
Application event totals		42.68	0.00	1.64	625.38	

08/01/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	70.03	36,614.66	72.14	599.61	1,132,983.57 <i>gal</i>
Well Water	Ground water	7.24	0.00	1.63	621.31	12,295,789.46 <i>gal</i>
Application event totals		77.27	36,614.66	73.77	1,220.92	

08/10/2023: Sudan

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/15/2023	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	1,037.54 <i>Lbs</i>
Application event totals		14.00	0.00	0.00	0.00	

08/17/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	6.10	0.00	1.37	523.69	10,363,881.42 <i>gal</i>
Application event totals		6.10	0.00	1.37	523.69	

09/03/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	5.98	0.00	1.34	513.52	10,162,641.20 <i>gal</i>
Lagoon Water Effluent	Process wastewater	13.68	7,153.84	14.09	117.15	221,364.45 <i>gal</i>
Application event totals		19.66	7,153.84	15.43	630.67	

09/24/2023	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	5.92	0.00	1.33	508.44	10,062,020.61 <i>gal</i>
Lagoon Water Effluent	Process wastewater	12.56	6,568.53	12.94	107.57	203,252.82 <i>gal</i>
Application event totals		18.48	6,568.53	14.27	616.01	

10/15/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	5.69	0.00	1.28	488.10	9,659,540.17 <i>gal</i>
Application event totals		5.69	0.00	1.28	488.10	

10/31/2023	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
Well Water	Ground water	5.92	0.00	1.33	508.44	10,062,020.61 <i>gal</i>
Lagoon Water Effluent	Process wastewater	10.57	5,527.97	10.89	90.53	171,054.35 <i>gal</i>
Application event totals		16.49	5,527.97	12.22	598.97	

10/20/2022: Triticale

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
11/07/2022	Surface (Irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	11.88	15,081.30	16.33	121.23	215,327.24 <i>gal</i>
Well Water	Ground water	4.00	0.00	1.34	464.80	9,407,989.66 <i>gal</i>
Application event totals		15.88	15,081.30	17.67	586.03	

11/29/2022	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
Lagoon Water Effluent	Process wastewater	39.53	50,177.05	54.32	403.35	716,415.88 <i>gal</i>
Well Water	Ground water	3.66	0.00	1.22	425.33	8,609,064.59 <i>gal</i>
Application event totals		43.19	50,177.05	55.54	828.68	

12/24/2022	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	2.43	0.00	0.81	282.86	5,725,289.79 <i>gal</i>
Lagoon Water Effluent	Process wastewater	37.09	47,076.22	50.96	378.43	672,142.96 <i>gal</i>
Application event totals		39.52	47,076.22	51.77	661.29	

01/18/2023	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	6.32	0.00	1.42	542.71	10,740,200.59 <i>gal</i>
Lagoon Water Effluent	Process wastewater	40.86	51,868.41	56.15	416.95	740,564.72 <i>gal</i>
Application event totals		47.18	51,868.41	57.57	959.66	

02/09/2023	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
Lagoon Water Effluent	Process wastewater	96.36	61,061.67	83.53	446.95	931,743.11 <i>gal</i>
Well Water	Ground water	4.15	0.00	0.93	355.81	7,041,402.17 <i>gal</i>
Application event totals		100.51	61,061.67	84.46	802.76	

03/03/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	741.10 <i>Gal.</i>
Well Water	Ground water	4.25	0.00	0.95	364.55	7,214,468.86 <i>gal</i>
Application event totals		39.64	0.00	0.95	364.55	

03/26/2023	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	3.61	0.00	0.81	309.84	6,131,795.22 <i>gal</i>
Lagoon Water Effluent	Process wastewater	79.92	50,642.94	69.28	370.69	772,763.19 <i>gal</i>
Application event totals		83.53	50,642.94	70.09	680.53	

Field name: 223

Crop: Corn, Late Silage

Plant date: 04/08/2023

04/08/2023: Corn, Late Silage

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
04/01/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	1,088.08 <i>Lbs</i>
Corral Solids	Corral Solids	113.82	35.45	96.90	1,521.30	388.60 <i>ton</i>
Application event totals		127.82	35.45	96.90	1,521.30	
04/03/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	5.86	0.00	1.32	503.35	10,446,633.59 <i>gal</i>
Lagoon Water Effluent	Process wastewater	37.46	23,738.88	32.47	173.76	379,877.61 <i>gal</i>
Application event totals		43.32	23,738.88	33.79	677.11	
05/01/2023	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
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	777.20 <i>Gal.</i>
Application event totals		35.39	0.00	0.00	0.00	
05/19/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	5.75	0.00	1.29	493.19	10,235,590.68 <i>gal</i>
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	777.20 <i>Gal.</i>
Application event totals		41.14	0.00	1.29	493.19	
06/10/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	5.92	0.00	1.33	508.44	10,552,155.55 <i>gal</i>
Lagoon Water Effluent	Process wastewater	62.09	52,318.90	100.01	695.81	1,236,712.68 <i>gal</i>

Application event totals		68.01	52,318.90	101.34	1,204.25	
06/28/2023	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	6.04	0.00	1.36	518.61	10,763,198.46 <i>gal</i>
Application event totals		6.04	0.00	1.36	518.61	
07/14/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	5.98	0.00	1.34	513.52	10,657,677.51 <i>gal</i>
Application event totals		5.98	0.00	1.34	513.52	
07/30/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	6.10	0.00	1.37	523.69	10,868,720.42 <i>gal</i>
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	777.20 <i>Gal.</i>
Application event totals		41.49	0.00	1.37	523.69	
08/15/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	5.65	0.00	1.27	485.05	10,066,756.35 <i>gal</i>
Application event totals		5.65	0.00	1.27	485.05	

11/05/2022: 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	38.91	9.84	22.72	184.60	388.60 <i>ton</i>
Application event totals		38.91	9.84	22.72	184.60	
11/05/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	3.08	0.00	1.03	357.92	7,597,551.79 <i>gal</i>
Lagoon Water Effluent	Process wastewater	15.43	19,591.60	21.21	157.49	293,349.92 <i>gal</i>
Application event totals		18.51	19,591.60	22.24	515.41	
11/30/2022	Surface (Irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	2.87	0.00	0.96	334.06	7,091,048.31 <i>gal</i>
Lagoon Water Effluent	Process wastewater	14.99	19,027.81	20.60	152.96	284,908.21 <i>gal</i>
Application event totals		17.86	19,027.81	21.56	487.02	
12/25/2022	Surface (Irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	3.16	0.00	1.06	367.66	7,804,374.65 <i>gal</i>
Lagoon Water Effluent	Process wastewater	39.53	50,177.05	54.32	403.35	751,313.49 <i>gal</i>
Application event totals		42.69	50,177.05	55.38	771.01	
01/19/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	38.31	48,626.63	52.64	390.89	728,098.73 <i>gal</i>
Well Water	Ground water	5.04	0.00	1.13	432.17	8,969,332.22 <i>gal</i>
Application event totals		43.35	48,626.63	53.77	823.06	
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	5.27	0.00	1.19	452.51	9,391,418.04 <i>gal</i>
Lagoon Water Effluent	Process wastewater	63.06	39,960.45	54.66	292.49	639,460.63 <i>gal</i>
Application event totals		68.33	39,960.45	55.85	745.00	
02/28/2023	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	5.39	0.00	1.21	462.68	9,602,461.95 <i>gal</i>
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	24.77	0.00	0.00	0.00	544.04 <i>Gal.</i>
Application event totals		30.16	0.00	1.21	462.68	
03/18/2023	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	4.27	0.00	0.96	366.08	7,597,551.79 <i>gal</i>
Lagoon Water Effluent	Process wastewater	30.38	19,254.87	26.34	140.94	308,122.94 <i>gal</i>
Application event totals		34.65	19,254.87	27.30	507.02	

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
Lagoon Water Effluent	Process wastewater	50.99	32,311.25	44.20	236.51	517,055.63 <i>gal</i>
Well Water	Ground water	5.98	0.00	1.34	513.52	10,657,677.51 <i>gal</i>
Application event totals		56.97	32,311.25	45.54	750.03	

Field name: 224

Crop: Corn, Late Silage

Plant date: 05/10/2023

05/10/2023: Corn, Late Silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/10/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	755.20 <i>Gal.</i>
Application event totals		35.39	0.00	0.00	0.00	

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
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	1,057.28 <i>Lbs</i>
Application event totals		14.00	0.00	0.00	0.00	

05/14/2023	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	6.04	0.00	1.36	518.61	10,458,526.75 <i>gal</i>
Application event totals		6.04	0.00	1.36	518.61	

05/28/2023	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
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	53.09	0.00	0.00	0.00	1,132.80 <i>Gal.</i>
Well Water	Ground water	5.92	0.00	1.33	508.44	10,253,457.79 <i>gal</i>
Application event totals		59.01	0.00	1.33	508.44	

06/19/2023	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	6.16	0.00	1.38	528.78	10,663,595.71 <i>gal</i>
Application event totals		6.16	0.00	1.38	528.78	

07/07/2023	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
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	53.09	0.00	0.00	0.00	1,132.80 <i>Gal.</i>
Well Water	Ground water	6.28	0.00	1.41	538.95	10,868,665.65 <i>gal</i>
Application event totals		59.37	0.00	1.41	538.95	

07/23/2023	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
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	755.20 <i>Gal.</i>
Well Water	Ground water	6.28	0.00	1.41	538.95	10,868,665.65 <i>gal</i>
Application event totals		41.67	0.00	1.41	538.95	

08/08/2023	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	6.28	0.00	1.41	538.95	10,868,665.65 <i>gal</i>
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	755.20 <i>Gal.</i>
Application event totals		41.67	0.00	1.41	538.95	

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	5.54	0.00	1.25	475.90	9,597,236.14 <i>gal</i>
Lagoon Water Effluent	Process wastewater	58.21	30,436.34	59.96	498.43	959,723.64 <i>gal</i>
Application event totals		63.75	30,436.34	61.21	974.33	

11/05/2022: 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	38.91	9.84	22.72	184.60	377.60 <i>ton</i>
Application event totals		38.91	9.84	22.72	184.60	

11/05/2022	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
Lagoon Water Effluent	Process wastewater	35.64	45,243.91	48.98	363.70	658,272.01 <i>gal</i>
Well Water	Ground water	3.58	0.00	1.20	416.08	8,582,144.05 <i>gal</i>
Application event totals		39.22	45,243.91	50.18	779.78	

11/30/2022	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
Lagoon Water Effluent	Process wastewater	51.63	65,540.25	70.95	526.85	953,571.58 <i>gal</i>
Well Water	Ground water	3.01	0.00	1.01	349.96	7,218,434.24 <i>gal</i>
Application event totals		54.64	65,540.25	71.96	876.81	

12/25/2022	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	2.94	0.00	0.98	342.01	7,054,379.07 <i>gal</i>
Lagoon Water Effluent	Process wastewater	72.84	92,461.08	100.09	743.26	1,345,253.70 <i>gal</i>
Application event totals		75.78	92,461.08	101.07	1,085.27	

01/19/2023	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	5.33	0.00	1.20	457.60	9,228,112.01 <i>gal</i>
Lagoon Water Effluent	Process wastewater	48.97	62,157.53	67.29	499.66	904,355.01 <i>gal</i>
Application event totals		54.30	62,157.53	68.49	957.26	

02/08/2023	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
Lagoon Water Effluent	Process wastewater	74.09	46,950.23	64.22	343.66	730,046.21 <i>gal</i>
Well Water	Ground water	5.57	0.00	1.25	477.93	9,638,249.93 <i>gal</i>
Application event totals		79.66	46,950.23	65.47	821.59	

02/28/2023	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	4.92	0.00	1.11	422.00	8,510,370.16 <i>gal</i>
Application event totals		4.92	0.00	1.11	422.00	

03/18/2023	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	4.31	0.00	0.97	370.14	7,464,517.48 <i>gal</i>
Lagoon Water Effluent	Process wastewater	63.48	40,224.21	55.02	294.42	625,460.94 <i>gal</i>

Application event totals		67.79	40,224.21	55.99	664.56	
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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	5.98	0.00	1.34	513.52	10,355,992.76 <i>gal</i>
Application event totals		5.98	0.00	1.34	513.52	

Field name: 225

Crop: Corn, Late Silage

Plant date: 05/12/2023

05/12/2023: Corn, Late Silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
05/01/2023	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	1,040.62 <i>Lbs</i>
Corral Solids	Corral Solids	190.24	45.54	71.75	1,518.10	371.65 <i>ton</i>
Application event totals		204.24	45.54	71.75	1,518.10	
05/03/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	5.86	0.00	1.32	503.35	9,990,971.20 <i>gal</i>
Application event totals		5.86	0.00	1.32	503.35	
05/12/2023	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
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	17.70	0.00	0.00	0.00	371.65 <i>Gal.</i>
Application event totals		17.70	0.00	0.00	0.00	
05/30/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	5.86	0.00	1.32	503.35	9,990,971.20 <i>gal</i>
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	743.30 <i>Gal.</i>
Application event totals		41.25	0.00	1.32	503.35	
06/21/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	6.35	0.00	1.43	544.64	10,810,432.99 <i>gal</i>
Application event totals		6.35	0.00	1.43	544.64	
07/09/2023	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	6.41	0.00	1.44	549.93	10,915,388.74 <i>gal</i>
Application event totals		6.41	0.00	1.44	549.93	

07/25/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	6.28	0.00	1.41	538.95	10,697,404.31 <i>gal</i>
Application event totals		6.28	0.00	1.41	538.95	

08/10/2023	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	6.16	0.00	1.38	528.78	10,495,565.73 <i>gal</i>
Application event totals		6.16	0.00	1.38	528.78	

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	5.65	0.00	1.27	485.05	9,627,663.49 <i>gal</i>
Lagoon Water Effluent	Process wastewater	70.03	36,614.66	72.14	599.61	1,136,346.92 <i>gal</i>
Application event totals		75.68	36,614.66	73.41	1,084.66	

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	38.91	9.84	22.72	184.60	371.65 <i>ton</i>
Application event totals		38.91	9.84	22.72	184.60	

11/12/2022	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	3.38	0.00	1.13	393.71	7,992,777.35 <i>gal</i>
Lagoon Water Effluent	Process wastewater	12.99	16,490.77	17.85	132.56	236,150.23 <i>gal</i>
Application event totals		16.37	16,490.77	18.98	526.27	

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	2.87	0.00	0.96	334.06	6,781,750.20 <i>gal</i>

Lagoon Water Effluent	Process wastewater	18.76	23,820.00	25.78	191.48	341,105.90 <i>gal</i>
Application event totals		21.63	23,820.00	26.74	525.54	
12/29/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	2.80	0.00	0.94	326.10	6,620,280.10 <i>gal</i>
Lagoon Water Effluent	Process wastewater	25.87	32,840.60	35.55	263.99	470,282.09 <i>gal</i>
Application event totals		28.67	32,840.60	36.49	590.09	
01/23/2023	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
Lagoon Water Effluent	Process wastewater	36.86	46,794.33	50.65	376.16	670,101.50 <i>gal</i>
Well Water	Ground water	4.86	0.00	1.09	416.92	8,275,350.01 <i>gal</i>
Application event totals		41.72	46,794.33	51.74	793.08	
02/14/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	5.39	0.00	1.21	462.68	9,183,620.73 <i>gal</i>
Lagoon Water Effluent	Process wastewater	47.24	29,937.37	40.95	219.13	458,171.82 <i>gal</i>
Application event totals		52.63	29,937.37	42.16	681.81	
03/08/2023	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	5.75	0.00	1.29	493.19	9,789,133.58 <i>gal</i>
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	743.30 <i>Gal.</i>
Application event totals		41.14	0.00	1.29	493.19	
03/31/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	4.48	0.00	1.01	384.38	7,629,468.67 <i>gal</i>
Lagoon Water Effluent	Process wastewater	84.50	53,544.36	73.24	391.92	819,461.48 <i>gal</i>
Application event totals		88.98	53,544.36	74.25	776.30	
04/23/2023	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	5.81	0.00	1.30	498.27	9,890,052.87 <i>gal</i>
Application event totals		5.81	0.00	1.30	498.27	

Field name: 226

Crop: Sudan

Plant date: 06/15/2023

06/15/2023: Sudan

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	788.90 <i>Lbs</i>
Application event totals		14.00	0.00	0.00	0.00	

06/03/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	6.16	0.00	1.38	528.78	7,956,748.26 <i>gal</i>
Application event totals		6.16	0.00	1.38	528.78	

07/01/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	16.32	13,749.33	26.28	182.86	235,642.17 <i>gal</i>
Well Water	Ground water	6.22	0.00	1.40	533.86	8,033,255.75 <i>gal</i>
Application event totals		22.54	13,749.33	27.68	716.72	

07/22/2023	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
Lagoon Water Effluent	Process wastewater	10.28	8,660.30	16.55	115.18	148,423.97 <i>gal</i>
Well Water	Ground water	6.16	0.00	1.38	528.78	7,956,748.26 <i>gal</i>
Application event totals		16.44	8,660.30	17.93	643.96	

08/12/2023	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	6.28	0.00	1.41	538.95	8,109,763.24 <i>gal</i>
Application event totals		6.28	0.00	1.41	538.95	

08/28/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	12.94	6,763.63	13.33	110.76	159,134.97 <i>gal</i>
Well Water	Ground water	6.22	0.00	1.40	533.86	8,033,255.75 <i>gal</i>

Application event totals		19.16	6,763.63	14.73	644.62	
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11/01/2022: Triticale

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
10/16/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Solids	Corral Solids	132.97	34.41	120.07	1,394.40	281.75 <i>ton</i>
Application event totals		132.97	34.41	120.07	1,394.40	
11/03/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	3.62	0.00	1.21	420.55	6,472,508.95 <i>gal</i>
Lagoon Water Effluent	Process wastewater	10.55	13,389.94	14.49	107.64	145,363.67 <i>gal</i>
Application event totals		14.17	13,389.94	15.70	528.19	
11/25/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	3.25	0.00	1.09	377.80	5,814,546.95 <i>gal</i>
Lagoon Water Effluent	Process wastewater	21.54	27,343.67	29.60	219.80	296,847.94 <i>gal</i>
Application event totals		24.79	27,343.67	30.69	597.60	
12/20/2022	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	3.08	0.00	1.03	357.92	5,508,518.08 <i>gal</i>
Lagoon Water Effluent	Process wastewater	23.87	30,303.56	32.80	243.60	328,980.96 <i>gal</i>
Application event totals		26.95	30,303.56	33.83	601.52	
01/14/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	23.87	30,303.56	32.80	243.60	328,980.96 <i>gal</i>
Well Water	Ground water	5.04	0.00	1.13	432.17	6,503,111.80 <i>gal</i>
Application event totals		28.91	30,303.56	33.93	675.77	
02/05/2023	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	5.57	0.00	1.25	477.93	7,191,676.28 <i>gal</i>
Lagoon Water Effluent	Process wastewater	42.25	26,772.18	36.62	195.96	310,619.21 <i>gal</i>

Application event totals		47.82	26,772.18	37.87	673.89	
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02/27/2023	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	5.09	0.00	1.15	437.26	6,579,619.29 <i>gal</i>
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	563.50 <i>Gal.</i>
Application event totals		40.48	0.00	1.15	437.26	

03/22/2023	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	4.38	0.00	0.98	375.84	5,655,411.83 <i>gal</i>
Lagoon Water Effluent	Process wastewater	61.60	39,037.27	53.40	285.74	452,922.62 <i>gal</i>
Application event totals		65.98	39,037.27	54.38	661.58	

04/14/2023	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	5.86	0.00	1.32	503.35	7,574,212.27 <i>gal</i>
Application event totals		5.86	0.00	1.32	503.35	

Field name: 227

Crop: Corn, Late Silage

Plant date: 05/13/2023

05/13/2023: Corn, Late Silage

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
05/06/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	97.72 <i>Lbs</i>
Corral Solids	Corral Solids	152.19	36.43	57.40	1,214.48	27.92 <i>ton</i>
Application event totals		166.19	36.43	57.40	1,214.48	
05/08/2023	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	5.92	0.00	1.33	508.44	947,684.57 <i>gal</i>
Lagoon Water Effluent	Process wastewater	11.55	9,731.67	18.60	129.43	20,659.52 <i>gal</i>
Application event totals		17.47	9,731.67	19.93	637.87	
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
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	69.80 <i>Gal.</i>
Application event totals		35.39	0.00	0.00	0.00	
05/31/2023	Surface (Irrigation)	No precipitation		No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	5.86	0.00	1.32	503.35	938,207.69 <i>gal</i>
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	69.80 <i>Gal.</i>
Application event totals		41.25	0.00	1.32	503.35	
06/22/2023	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	6.04	0.00	1.36	518.61	966,638.24 <i>gal</i>
Lagoon Water Effluent	Process wastewater	40.05	33,748.37	64.51	448.84	71,644.95 <i>gal</i>

Application event totals		46.09	33,748.37	65.87	967.45	
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07/10/2023	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
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	69.80 <i>Gal.</i>
Well Water	Ground water	6.22	0.00	1.40	533.86	995,068.80 <i>gal</i>
Application event totals		41.61	0.00	1.40	533.86	

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	6.16	0.00	1.38	528.78	985,591.92 <i>gal</i>
Application event totals		6.16	0.00	1.38	528.78	

08/11/2023	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
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	69.80 <i>Gal.</i>
Well Water	Ground water	6.28	0.00	1.41	538.95	1,004,545.68 <i>gal</i>
Application event totals		41.67	0.00	1.41	538.95	

08/27/2023	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	5.54	0.00	1.25	475.90	887,032.73 <i>gal</i>
Application event totals		5.54	0.00	1.25	475.90	

11/05/2022: 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	38.91	9.84	22.72	184.60	34.90 <i>ton</i>
Application event totals		38.91	9.84	22.72	184.60	

11/05/2022	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
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Well Water	Ground water	3.50	0.00	1.17	407.13	776,153.62 <i>gal</i>
Lagoon Water Effluent	Process wastewater	29.76	37,773.73	40.89	303.65	50,795.89 <i>gal</i>
Application event totals		33.26	37,773.73	42.06	710.78	

11/30/2022	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	2.80	0.00	0.94	326.10	621,681.07 <i>gal</i>
Lagoon Water Effluent	Process wastewater	27.31	34,672.91	37.53	278.72	46,626.08 <i>gal</i>
Application event totals		30.11	34,672.91	38.47	604.82	

12/25/2022	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	3.05	0.00	1.02	354.84	676,457.29 <i>gal</i>
Lagoon Water Effluent	Process wastewater	32.64	41,438.35	44.86	333.11	55,723.85 <i>gal</i>
Application event totals		35.69	41,438.35	45.88	687.95	

01/19/2023	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	5.09	0.00	1.15	437.26	815,008.77 <i>gal</i>
Application event totals		5.09	0.00	1.15	437.26	

02/08/2023	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	5.63	0.00	1.26	483.02	900,300.34 <i>gal</i>
Lagoon Water Effluent	Process wastewater	89.91	56,973.31	77.94	417.02	81,879.95 <i>gal</i>
Application event totals		95.54	56,973.31	79.20	900.04	

02/28/2023	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
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	24.77	0.00	0.00	0.00	48.86 <i>Gal.</i>
Well Water	Ground water	4.98	0.00	1.12	427.09	796,055.00 <i>gal</i>
Application event totals		29.75	0.00	1.12	427.09	

03/18/2023	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
Lagoon Water Effluent	Process wastewater	85.12	53,940.01	73.79	394.82	77,520.60 <i>gal</i>
Well Water	Ground water	4.60	0.00	1.03	394.55	735,403.25 <i>gal</i>

Application event totals		89.72	53,940.01	74.82	789.37	
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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	5.63	0.00	1.26	483.02	900,300.34 <i>gal</i>
Application event totals		5.63	0.00	1.26	483.02	

Field name: 228

Crop: Corn, Late Silage

Plant date: 05/15/2023

05/15/2023: Corn, Late Silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/11/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	302.54 <i>Lbs</i>
Application event totals		14.00	0.00	0.00	0.00	

05/13/2023	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	5.81	0.00	1.30	498.27	2,875,340.29 <i>gal</i>
Application event totals		5.81	0.00	1.30	498.27	

05/15/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	216.10 <i>Gal.</i>
Application event totals		35.39	0.00	0.00	0.00	

06/02/2023	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	6.16	0.00	1.38	528.78	3,051,381.36 <i>gal</i>
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	53.09	0.00	0.00	0.00	324.15 <i>Gal.</i>
Application event totals		59.25	0.00	1.38	528.78	

06/24/2023	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	6.04	0.00	1.36	518.61	2,992,701.00 <i>gal</i>
Application event totals		6.04	0.00	1.36	518.61	

07/12/2023	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
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Well Water	Ground water	6.28	0.00	1.41	538.95	3,110,061.99 <i>gal</i>
Lagoon Water Effluent	Process wastewater	59.97	50,533.27	96.59	672.07	332,131.13 <i>gal</i>
Application event totals		66.25	50,533.27	98.00	1,211.02	

07/28/2023	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	6.28	0.00	1.41	538.95	3,110,061.99 <i>gal</i>
Lagoon Water Effluent	Process wastewater	64.42	54,283.09	103.76	721.94	356,776.90 <i>gal</i>
Application event totals		70.70	54,283.09	105.17	1,260.89	

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	6.10	0.00	1.37	523.69	3,022,041.32 <i>gal</i>
Lagoon Water Effluent	Process wastewater	83.83	43,833.54	86.36	717.83	395,506.00 <i>gal</i>
Application event totals		89.93	43,833.54	87.73	1,241.52	

08/29/2023	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	5.65	0.00	1.27	485.05	2,799,055.68 <i>gal</i>
Application event totals		5.65	0.00	1.27	485.05	

11/05/2022: 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	38.91	9.84	22.72	184.60	108.05 <i>ton</i>
Application event totals		38.91	9.84	22.72	184.60	

11/07/2022	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	3.77	0.00	1.26	438.45	2,587,806.12 <i>gal</i>
Lagoon Water Effluent	Process wastewater	40.42	51,304.62	55.54	412.42	213,596.70 <i>gal</i>
Application event totals		44.19	51,304.62	56.80	850.87	

11/29/2022	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
Lagoon Water Effluent	Process wastewater	33.20	42,143.08	45.62	338.77	175,454.43 <i>gal</i>

Well Water	Ground water	2.77	0.00	0.93	322.13	1,901,245.38 <i>gal</i>
Application event totals		35.97	42,143.08	46.55	660.90	
12/24/2022	Surface (Irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	32.98	41,861.19	45.31	336.50	174,280.82 <i>gal</i>
Well Water	Ground water	2.77	0.00	0.93	322.13	1,901,245.38 <i>gal</i>
Application event totals		35.75	41,861.19	46.24	658.63	
01/18/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	4.92	0.00	1.11	422.00	2,435,237.19 <i>gal</i>
Lagoon Water Effluent	Process wastewater	43.75	55,533.03	60.11	446.41	231,200.82 <i>gal</i>
Application event totals		48.67	55,533.03	61.22	868.41	
02/09/2023	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	5.04	0.00	1.13	432.17	2,493,917.55 <i>gal</i>
Lagoon Water Effluent	Process wastewater	72.01	45,631.40	62.42	334.00	203,034.22 <i>gal</i>
Application event totals		77.05	45,631.40	63.55	766.17	
03/03/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	216.10 <i>Gal.</i>
Well Water	Ground water	5.15	0.00	1.16	442.34	2,552,597.90 <i>gal</i>
Application event totals		40.54	0.00	1.16	442.34	
03/26/2023	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	4.43	0.00	1.00	380.11	2,193,473.78 <i>gal</i>
Application event totals		4.43	0.00	1.00	380.11	
04/18/2023	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	5.63	0.00	1.26	483.02	2,787,319.61 <i>gal</i>
Lagoon Water Effluent	Process wastewater	26.64	16,880.98	23.09	123.56	75,110.93 <i>gal</i>
Application event totals		32.27	16,880.98	24.35	606.58	

B. NUTRIENT BUDGET

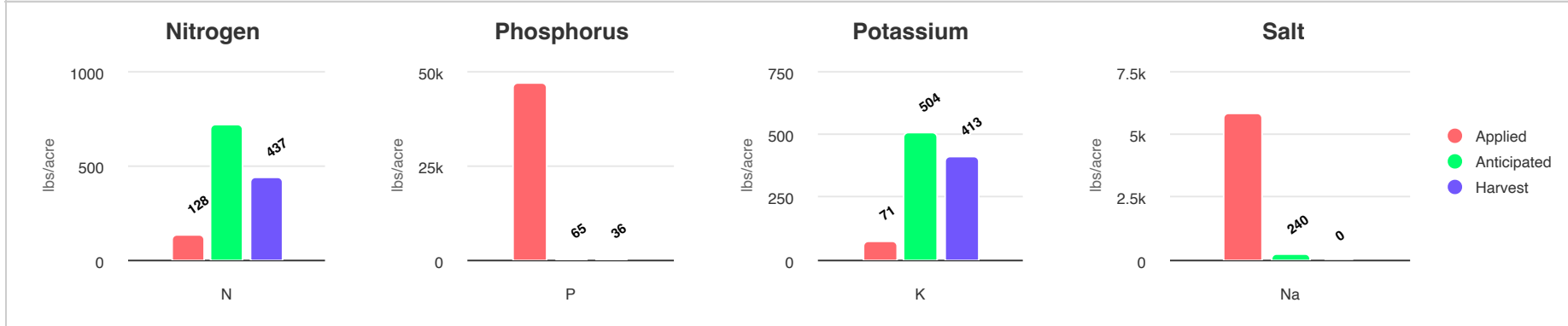
221 - 11/01/2020: Alfalfa

Field name: 221

Crop: Alfalfa

Plant date: 11/01/2020

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	50.85	46,850.30	56.64	392.76
Fresh water	63.53	0.00	14.27	5,454.52
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	128.38	46,850.30	70.91	5,847.28
Anticipated crop nutrient removal	720.00	64.80	504.00	240.00
Actual crop nutrient removal	436.77	35.52	412.98	0.00
Nutrient balance	-308.39	46,814.78	-342.07	5,847.28
Applied to removed ratio	0.29	1,318.85	0.17	0.00

Fresh water applied

111,193,469.25 gallons
4,094.88 acre-inches
53.64 inches/acre

Process wastewater applied

825,037.30 gallons
30.38 acre-inches
0.40 inches/acre

Total Harvests for the crop

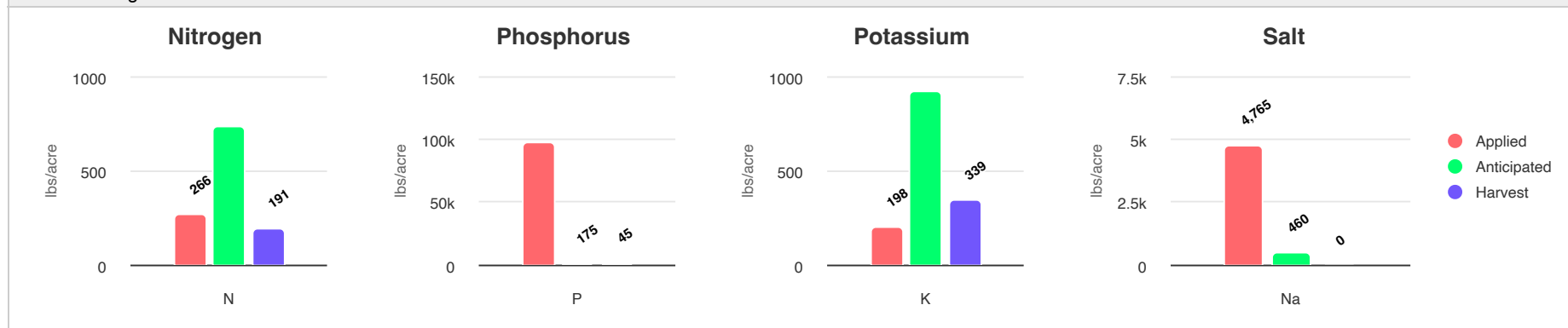
7 harvests

Field name: 222

Crop: Corn, Late Silage

Plant date: 04/21/2023

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	70.78	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	142.51	97,683.13	188.87	1,411.79
Fresh water	39.07	0.00	8.79	3,352.84
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	266.36	97,683.13	197.66	4,764.63
Anticipated crop nutrient removal	736.00	174.80	920.00	460.00
Actual crop nutrient removal	191.45	44.55	338.99	0.00
Nutrient balance	74.91	97,638.58	-141.33	4,764.63
Applied to removed ratio	1.39	2,192.51	0.58	0.00

Fresh water applied

66,352,988.97 gallons
 2,443.55 acre-inches
 32.97 inches/acre

Process wastewater applied

2,509,468.02 gallons
 92.42 acre-inches
 1.25 inches/acre

Total Harvests for the crop

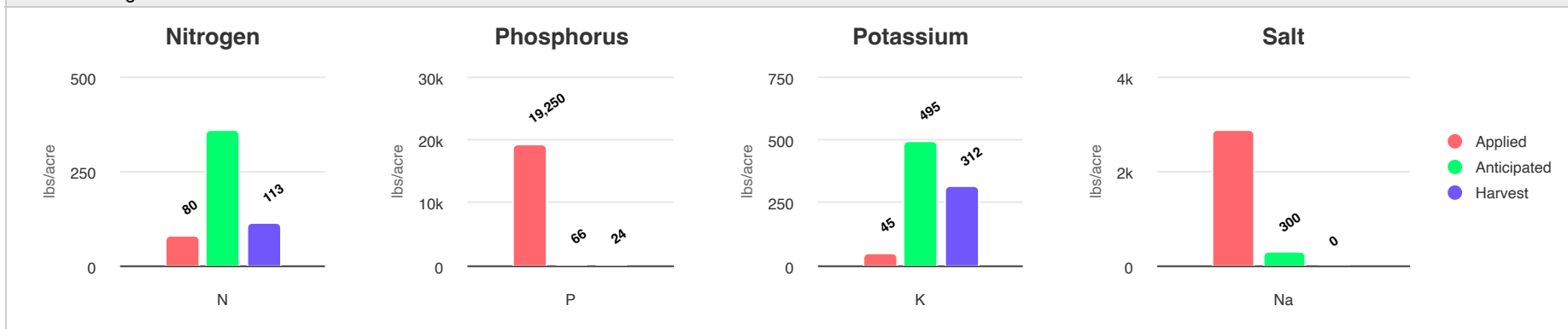
1 harvests

Field name: 222

Crop: Sudan

Plant date: 08/10/2023

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	36.81	19,250.34	37.92	315.25
Fresh water	29.61	0.00	6.65	2,542.19
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	80.42	19,250.34	44.57	2,857.44
Anticipated crop nutrient removal	360.00	66.00	495.00	300.00
Actual crop nutrient removal	113.04	23.68	312.16	0.00
Nutrient balance	-32.62	19,226.66	-267.59	2,857.44
Applied to removed ratio	0.71	812.84	0.14	0.00

Fresh water applied

50,310,104.02 gallons
 1,852.75 acre-inches
 25.00 inches/acre

Process wastewater applied

595,671.63 gallons
 21.94 acre-inches
 0.30 inches/acre

Total Harvests for the crop

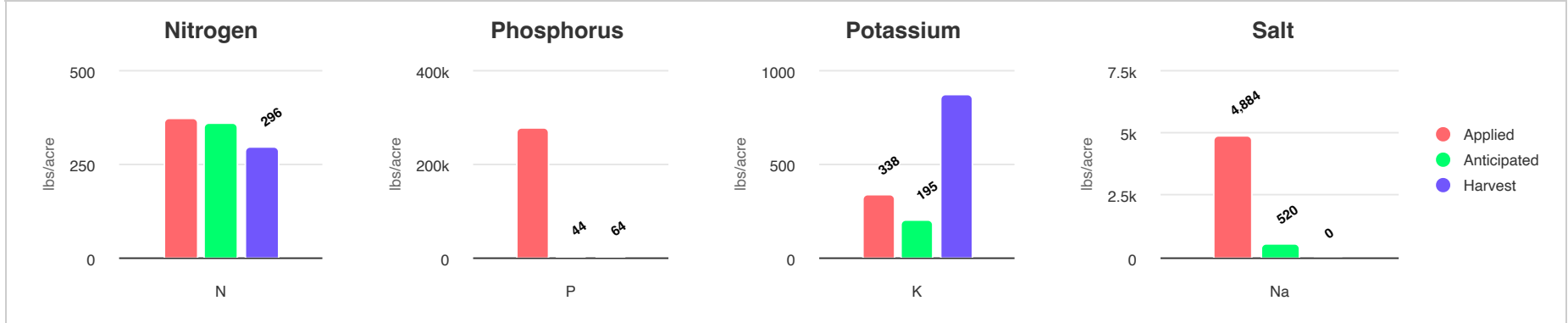
1 harvests

Field name: 222

Crop: Triticale

Plant date: 10/20/2022

Nutrient budgets in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	35.39	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	305.64	275,907.59	330.57	2,137.60
Fresh water	28.42	0.00	7.48	2,745.90
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	369.45	275,907.59	338.05	4,883.50
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	296.38	63.84	866.35	0.00
Nutrient balance	73.07	275,843.75	-528.30	4,883.50
Applied to removed ratio	1.25	4,322.09	0.39	0.00

Fresh water applied

54,870,210.87 gallons
 2,020.68 acre-inches
 27.27 inches/acre

Process wastewater applied

4,048,957.10 gallons
 149.11 acre-inches
 2.01 inches/acre

Total Harvests for the crop

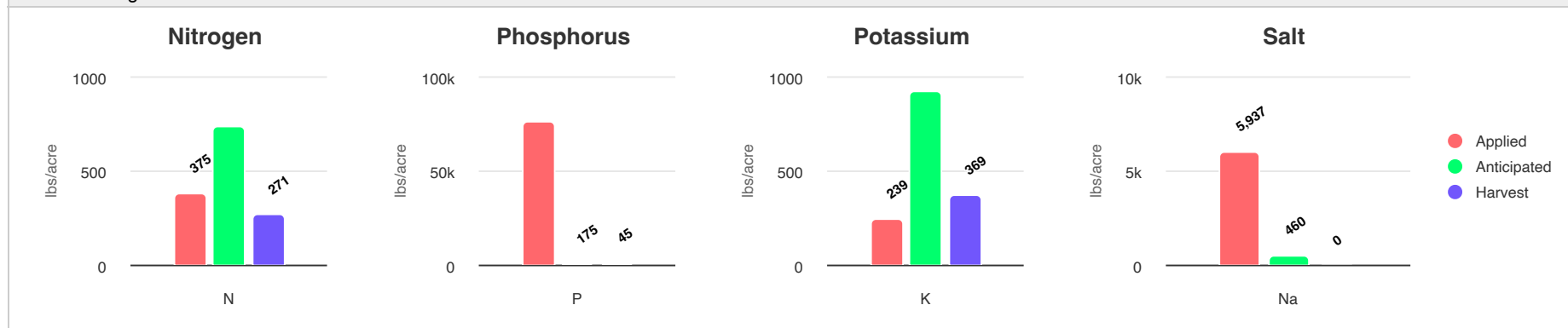
1 harvests

Field name: 223

Crop: Corn, Late Silage

Plant date: 04/08/2023

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	106.17	0.00	0.00	0.00
Dry manure	113.82	35.45	96.90	1,521.30
Process wastewater	99.55	76,057.78	132.48	869.57
Fresh water	41.30	0.00	9.28	3,545.85
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	374.84	76,093.23	238.66	5,936.72
Anticipated crop nutrient removal	736.00	174.80	920.00	460.00
Actual crop nutrient removal	271.00	45.08	368.51	0.00
Nutrient balance	103.85	76,048.15	-129.84	5,936.72
Applied to removed ratio	1.38	1,687.87	0.65	0.00

Fresh water applied

73,590,732.56 gallons
 2,710.10 acre-inches
 34.87 inches/acre

Process wastewater applied

1,616,590.30 gallons
 59.53 acre-inches
 0.77 inches/acre

Total Harvests for the crop

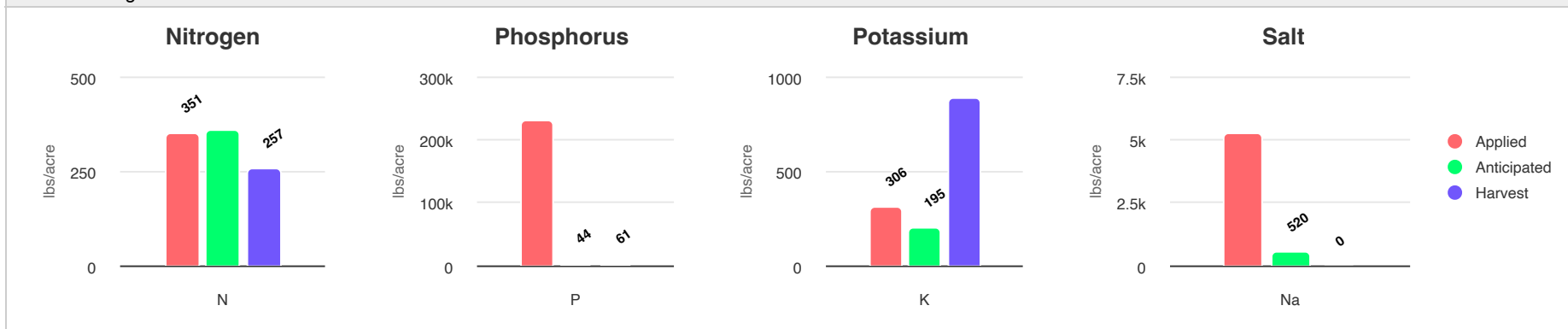
1 harvests

Field name: 223

Crop: Triticale

Plant date: 11/05/2022

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	24.77	0.00	0.00	0.00
Dry manure	38.91	9.84	22.72	184.60
Process wastewater	252.69	228,949.66	273.97	1,774.63
Fresh water	35.06	0.00	8.88	3,286.60
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	351.43	228,959.50	305.57	5,245.83
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	257.32	61.08	883.73	0.00
Nutrient balance	94.11	228,898.42	-578.16	5,245.83
Applied to removed ratio	1.37	3,748.44	0.35	0.00

Fresh water applied

68,711,416.26 gallons
 2,530.41 acre-inches
 32.56 inches/acre

Process wastewater applied

3,522,309.55 gallons
 129.71 acre-inches
 1.67 inches/acre

Total Harvests for the crop

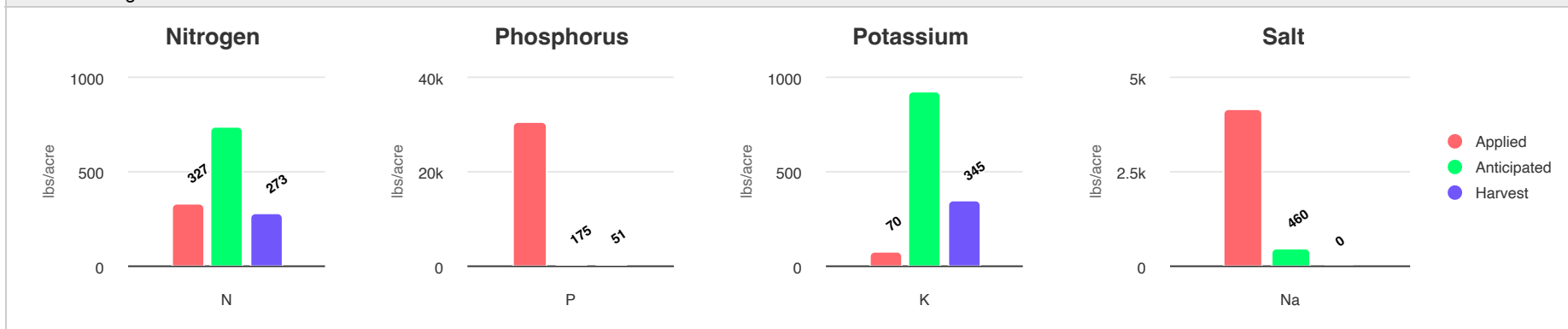
1 harvests

Field name: 224

Crop: Corn, Late Silage

Plant date: 05/10/2023

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	212.35	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	58.21	30,436.34	59.96	498.43
Fresh water	42.50	0.00	9.55	3,648.58
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	327.06	30,436.34	69.51	4,147.01
Anticipated crop nutrient removal	736.00	174.80	920.00	460.00
Actual crop nutrient removal	273.39	50.90	344.64	0.00
Nutrient balance	53.67	30,385.44	-275.13	4,147.01
Applied to removed ratio	1.20	598.01	0.20	0.00

Fresh water applied

73,578,813.31 gallons
 2,709.66 acre-inches
 35.88 inches/acre

Process wastewater applied

959,723.64 gallons
 35.34 acre-inches
 0.47 inches/acre

Total Harvests for the crop

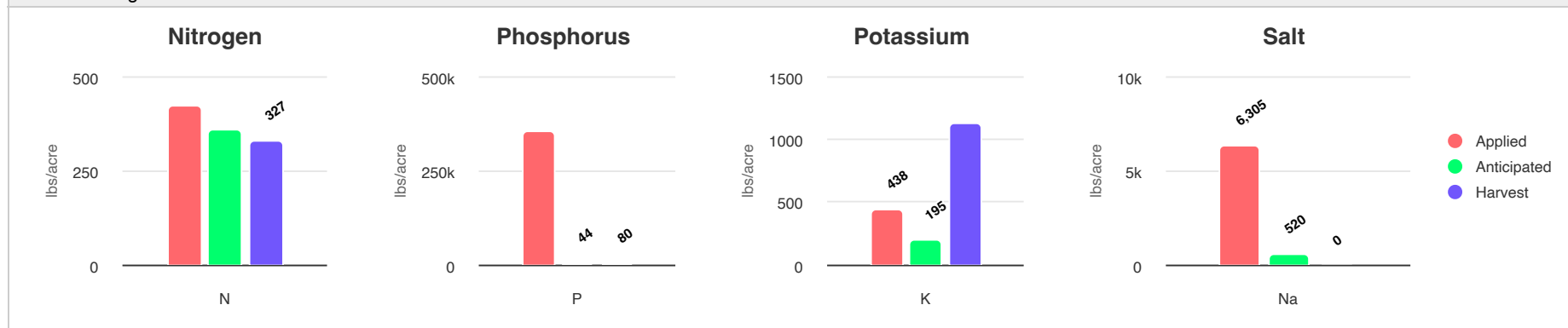
1 harvests

Field name: 224

Crop: Triticale

Plant date: 11/05/2022

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	38.91	9.84	22.72	184.60
Process wastewater	346.65	352,577.21	406.55	2,771.55
Fresh water	35.64	0.00	9.06	3,349.24
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	421.20	352,587.05	438.33	6,305.39
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	326.76	79.95	1,129.75	0.00
Nutrient balance	94.44	352,507.10	-691.42	6,305.39
Applied to removed ratio	1.29	4,410.00	0.39	0.00

Fresh water applied

68,052,199.70 gallons
 2,506.13 acre-inches
 33.19 inches/acre

Process wastewater applied

5,216,959.44 gallons
 192.12 acre-inches
 2.54 inches/acre

Total Harvests for the crop

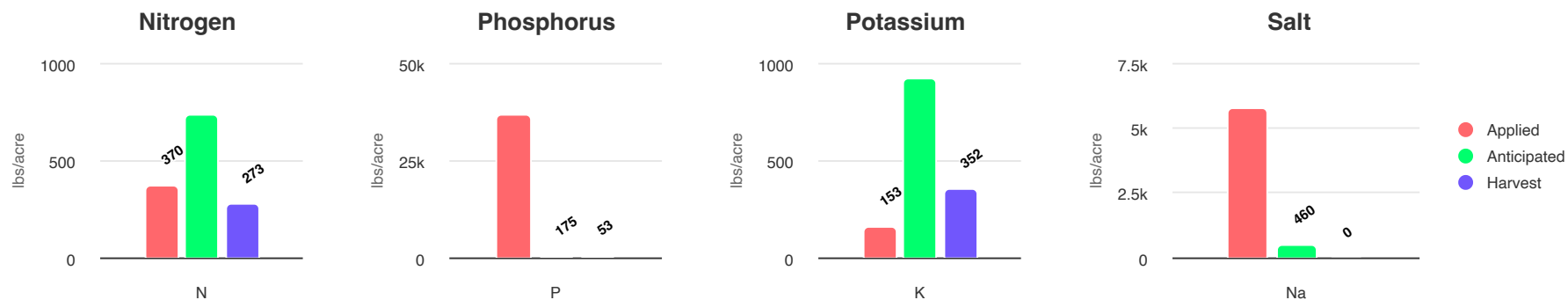
1 harvests

Field name: 225

Crop: Corn, Late Silage

Plant date: 05/12/2023

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	190.24	45.54	71.75	1,518.10
Process wastewater	70.03	36,614.66	72.14	599.61
Fresh water	42.57	0.00	9.57	3,654.05
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	369.93	36,660.20	153.46	5,771.76
Anticipated crop nutrient removal	736.00	174.80	920.00	460.00
Actual crop nutrient removal	273.10	52.95	351.88	0.00
Nutrient balance	96.83	36,607.26	-198.42	5,771.76
Applied to removed ratio	1.35	692.41	0.44	0.00

Fresh water applied

72,528,397.66 gallons
 2,670.97 acre-inches
 35.93 inches/acre

Process wastewater applied

1,136,346.92 gallons
 41.85 acre-inches
 0.56 inches/acre

Total Harvests for the crop

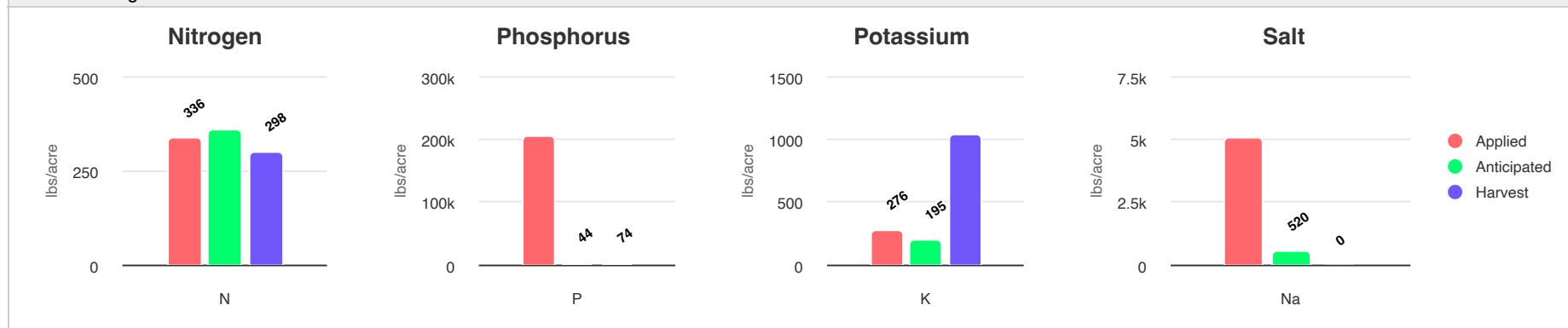
1 harvests

Field name: 225

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	35.39	0.00	0.00	0.00
Dry manure	38.91	9.84	22.72	184.60
Process wastewater	226.22	203,427.43	244.02	1,575.24
Fresh water	35.34	0.00	8.93	3,309.31
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	335.86	203,437.27	275.67	5,069.15
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	298.37	74.19	1,032.19	0.00
Nutrient balance	37.49	203,363.08	-756.52	5,069.15
Applied to removed ratio	1.13	2,742.16	0.27	0.00

Fresh water applied

66,162,433.53 gallons
 2,436.54 acre-inches
 32.78 inches/acre

Process wastewater applied

2,995,273.03 gallons
 110.31 acre-inches
 1.48 inches/acre

Total Harvests for the crop

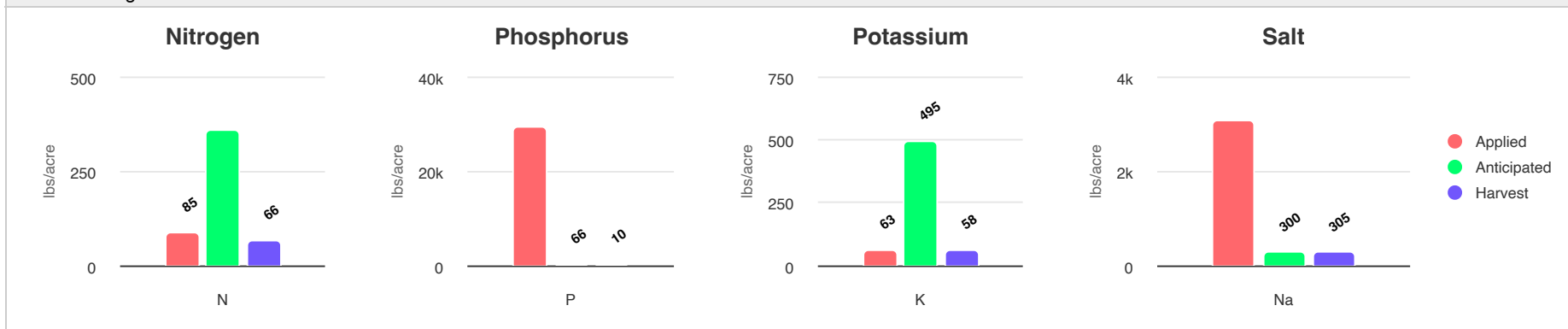
1 harvests

Field name: 226

Crop: Sudan

Plant date: 06/15/2023

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	39.54	29,173.26	56.16	408.80
Fresh water	31.04	0.00	6.97	2,664.23
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	84.58	29,173.26	63.13	3,073.03
Anticipated crop nutrient removal	360.00	66.00	495.00	300.00
Actual crop nutrient removal	65.88	9.55	58.24	304.56
Nutrient balance	18.70	29,163.71	4.89	2,768.47
Applied to removed ratio	1.28	3,055.69	1.08	10.09

Fresh water applied

40,089,771.25 gallons
 1,476.37 acre-inches
 26.20 inches/acre

Process wastewater applied

543,201.11 gallons
 20.00 acre-inches
 0.36 inches/acre

Total Harvests for the crop

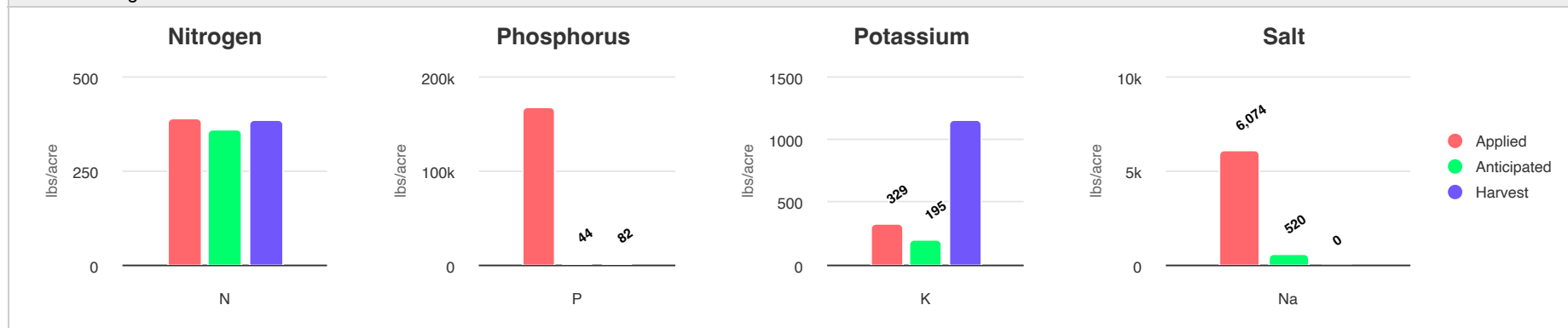
2 harvests

Field name: 226

Crop: Triticale

Plant date: 11/01/2022

Nutrient budgets in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	35.39	0.00	0.00	0.00
Dry manure	132.97	34.41	120.07	1,394.40
Process wastewater	183.68	167,150.18	199.71	1,296.34
Fresh water	35.89	0.00	9.16	3,382.82
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	387.93	167,184.59	328.94	6,073.56
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	381.71	82.44	1,146.93	0.00
Nutrient balance	6.21	167,102.16	-817.99	6,073.56
Applied to removed ratio	1.02	2,028.06	0.29	0.00

Fresh water applied

51,299,605.44 gallons
 1,889.19 acre-inches
 33.53 inches/acre

Process wastewater applied

1,863,715.35 gallons
 68.63 acre-inches
 1.22 inches/acre

Total Harvests for the crop

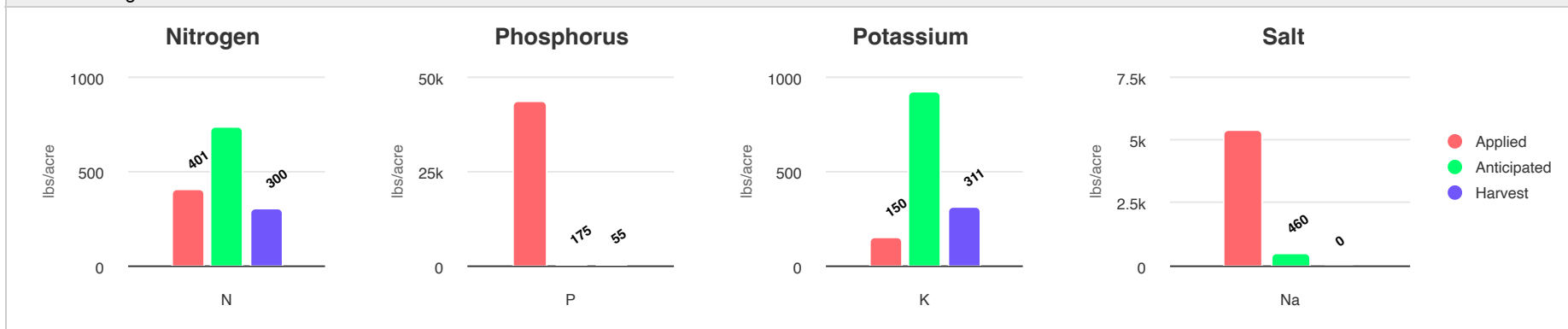
1 harvests

Field name: 227

Crop: Corn, Late Silage

Plant date: 05/13/2023

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	141.56	0.00	0.00	0.00
Dry manure	152.19	36.43	57.40	1,214.48
Process wastewater	51.60	43,480.04	83.11	578.27
Fresh water	42.02	0.00	9.45	3,607.89
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	401.37	43,516.47	149.96	5,400.64
Anticipated crop nutrient removal	736.00	174.80	920.00	460.00
Actual crop nutrient removal	299.81	55.26	310.89	0.00
Nutrient balance	101.56	43,461.22	-160.93	5,400.64
Applied to removed ratio	1.34	787.50	0.48	0.00

Fresh water applied

6,724,769.62 gallons
 247.65 acre-inches
 35.48 inches/acre

Process wastewater applied

92,304.47 gallons
 3.40 acre-inches
 0.49 inches/acre

Total Harvests for the crop

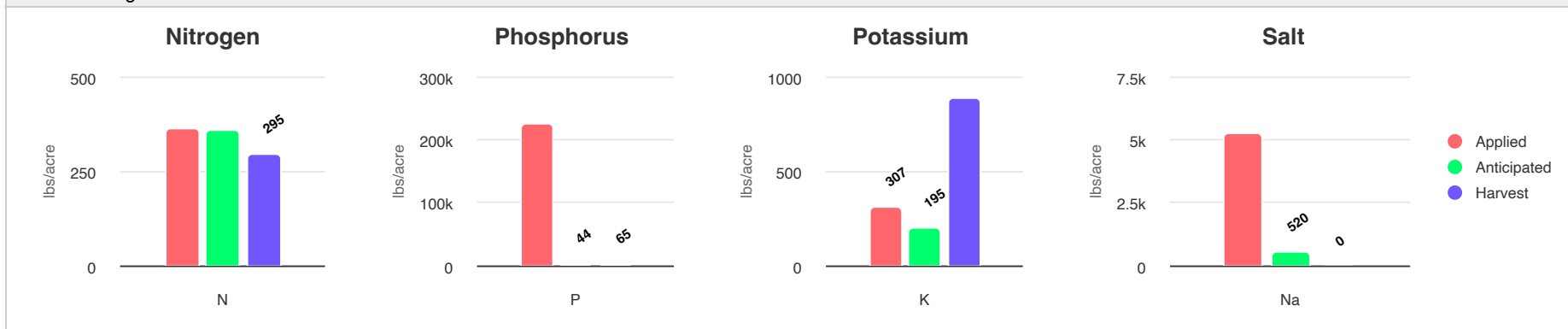
1 harvests

Field name: 227

Crop: Triticale

Plant date: 11/05/2022

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	24.77	0.00	0.00	0.00
Dry manure	38.91	9.84	22.72	184.60
Process wastewater	264.74	224,798.31	275.01	1,727.32
Fresh water	35.28	0.00	8.95	3,313.01
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	363.70	224,808.15	306.68	5,224.93
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	294.80	64.68	882.89	0.00
Nutrient balance	68.90	224,743.48	-576.21	5,224.93
Applied to removed ratio	1.23	3,475.94	0.35	0.00

Fresh water applied

6,221,359.69 gallons
 229.11 acre-inches
 32.82 inches/acre

Process wastewater applied

312,546.38 gallons
 11.51 acre-inches
 1.65 inches/acre

Total Harvests for the crop

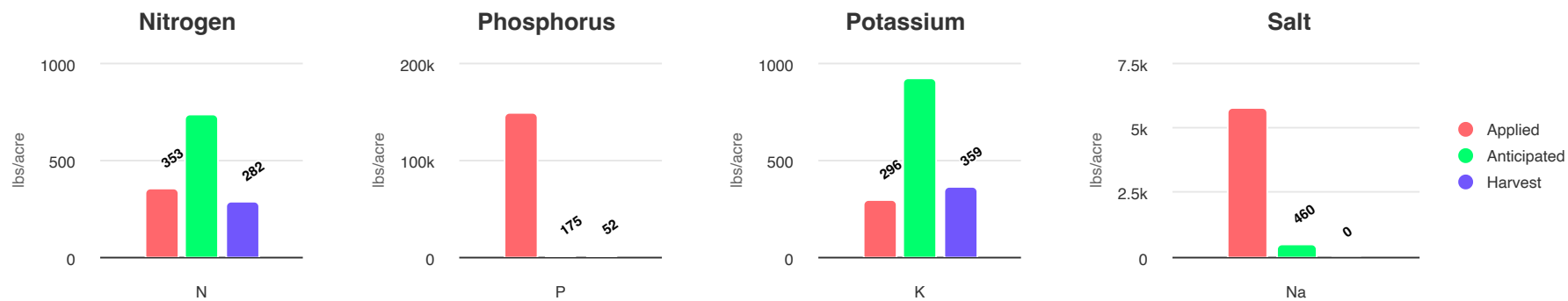
1 harvests

Field name: 228

Crop: Corn, Late Silage

Plant date: 05/15/2023

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	88.48	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	208.22	148,649.90	286.71	2,111.84
Fresh water	42.32	0.00	9.50	3,632.30
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	353.02	148,649.90	296.21	5,744.14
Anticipated crop nutrient removal	736.00	174.80	920.00	460.00
Actual crop nutrient removal	281.67	51.90	358.59	0.00
Nutrient balance	71.35	148,598.00	-62.38	5,744.14
Applied to removed ratio	1.25	2,864.18	0.83	0.00

Fresh water applied

20,960,643.62 gallons
 771.91 acre-inches
 35.72 inches/acre

Process wastewater applied

1,084,414.02 gallons
 39.94 acre-inches
 1.85 inches/acre

Total Harvests for the crop

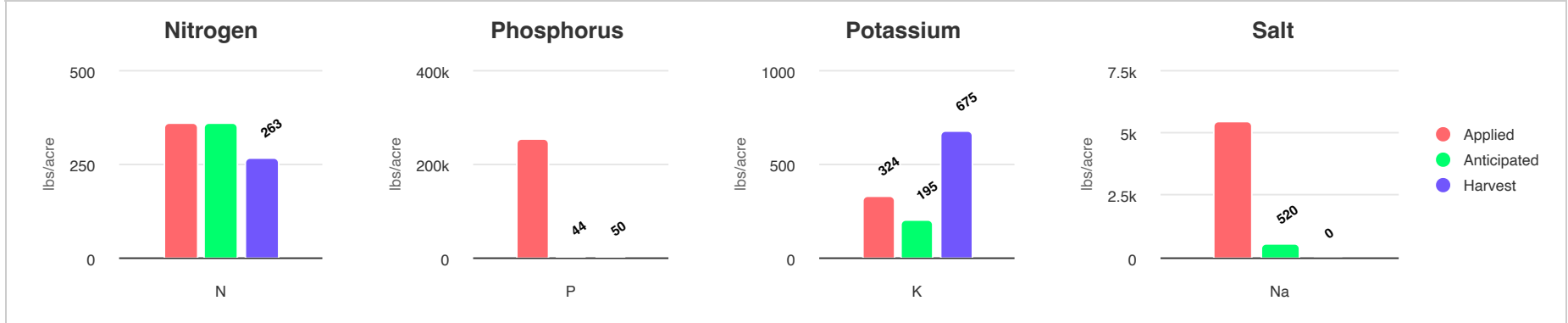
1 harvests

Field name: 228

Crop: Triticale

Plant date: 11/05/2022

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	35.39	0.00	0.00	0.00
Dry manure	38.91	9.84	22.72	184.60
Process wastewater	249.00	253,354.30	292.09	1,991.66
Fresh water	34.48	0.00	8.78	3,242.35
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	357.78	253,364.14	323.59	5,418.61
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	263.21	49.63	675.33	0.00
Nutrient balance	94.56	253,314.51	-351.74	5,418.61
Applied to removed ratio	1.36	5,104.58	0.48	0.00

Fresh water applied

18,852,842.91 gallons
 694.29 acre-inches
 32.13 inches/acre

Process wastewater applied

1,072,677.93 gallons
 39.50 acre-inches
 1.83 inches/acre

Total Harvests for the crop

1 harvests

NUTRIENT ANALYSES

A. MANURE ANALYSES

T3090017A

Sample and source description name: T3090017A

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

Moisture: 53.9%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	24,690.00	7,690.00	21,020.00	19,090.00	8,560.00	7,430.00	5,000.00	1,515.00	21,020.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3090017B

Sample and source description name: T3090017B

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

Moisture: 85.8%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	30,640.00	7,170.00	8,730.00	16,460.00	7,000.00	2,240.00	3,100.00	1,068.00	8,730.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3090017C

Sample and source description name: T3090017C

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

Moisture: 77.1%

	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	16,920.00	2,180.00	4,000.00	8,360.00	3,150.00	1,730.00	2,800.00	577.00	4,000.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3167036A

Sample and source description name: T3167036A

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

Moisture:

20.1%

	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	23,810.00	5,700.00	8,980.00	13,710.00	5,480.00	3,660.00	2,500.00	992.00	8,980.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3167036B

Sample and source description name: T3167036B

Sample date: 06/12/2023

Material type: Corral solids

Source of analysis: Lab Analysis

Method of reporting: As-is

Moisture: 76.1%

	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	15,300.00	2,140.00	3,330.00	8,470.00	2,580.00	1,640.00	2,400.00	578.00	3,330.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3167036C

Sample and source description name: T3167036C

Sample date: 06/12/2023

Material type: Corral solids

Source of analysis: Lab Analysis

Method of reporting: As-is

Moisture: 86%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	24,630.00	8,050.00	4,450.00	23,260.00	6,560.00	2,260.00	2,300.00	1,458.00	4,450.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3263095A

Sample and source description name: T3263095A

Sample date: 09/15/2023

Material type: Corral solids

Source of analysis: Lab Analysis

Method of reporting: As-is

Moisture: 9.5%

	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	21,100.00	8,170.00	36,950.00	24,170.00	10,270.00	10,860.00	12,930.00	2,002.00	36,950.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3263095B

Sample and source description name: T3263095B

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

Moisture: 73%

	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	16,200.00	2,260.00	5,360.00	11,010.00	3,100.00	2,030.00	6,720.00	745.00	5,360.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3263095C

Sample and source description name: T3263095C

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

Moisture: 85.1%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	17,800.00	5,670.00	8,640.00	13,650.00	4,050.00	4,880.00	4,650.00	1,059.00	8,640.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3362027A

Sample and source description name: T3362027A

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

Moisture: 48.4%

	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	24,030.00	13,170.00	21,660.00	13,630.00	5,000.00	7,870.00	5,780.00	1,228.00	21,660.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3362027B

Sample and source description name: T3362027B

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

Moisture: 80.1%

	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 (%)
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Value	15,680.00	2,790.00	3,230.00	3,920.00	1,790.00	1,380.00	2,940.00	474.00	3,230.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3362027C

Sample and source description name: T3362027C

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

Moisture: 78.8%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	20,710.00	6,230.00	9,740.00	9,510.00	3,580.00	980.00	2,560.00	599.00	9,740.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

B. PROCESS WASTEWATER ANALYSES

T3089030A

Sample and source description name: T3089030A

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	918.40	0.00	369.60	0.02	58.20	796.13	151.71	82.55	285.74	0.00	0.00	225.28	453.42	6.49	4,260.00
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

T3167023A

Sample and source description name: T3167023A

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	467.60	0.00	428.40	0.00	39.40	753.11	100.42	95.07	293.03	0.00	0.00	276.25	279.86	6.97	5,240.00
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

T3263059A

Sample and source description name: T3263059A

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	548.80	0.00	406.00	0.10	28.70	565.44	74.49	63.11	328.01	0.00	0.00	183.51	152.58	7.23	4,700.00
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

T3362083A															
Sample and source description name: T3362083A															
Sample date: 12/22/2023		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	470.40	0.00	372.40	0.11	50.30	583.72	124.45	72.67	280.07	0.00	0.00	234.21	240.05	6.49	4,380.00
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

F2 #1															
T3228016A															
Sample and source description name: T3228016A															
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	2.02	0.00	2.02	21.27	0.03	83.44	0.00	0.00	57.30	98.85	0.68	300.00			
DL	0.50	0.50	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10			

F2 #2															
T3228016B															
Sample and source description name: T3228016B															
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	10.28	0.00	10.28	72.25	0.11	152.57	0.00	0.00	133.47	217.09	1.20	545.00
DL	0.50	0.50	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

F2 #3

T3228016C

Sample and source description name: T3228016C

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	5.26	0.00	5.26	64.55	0.14	141.04	0.00	0.00	177.39	156.31	1.06	535.00
DL	0.50	0.50	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

F2 #4

T3228016D

Sample and source description name: T3228016D

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	3.36	0.00	3.36	39.28	0.07	136.98	0.00	0.00	121.12	153.93	0.93	415.00
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

221 - 01/01/2023: Alfalfa

T3167027A

Sample
description: T3167027A

Sample date: 06/09/2023 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	27,910.00	2,270.00	26,390.00	2,010.00	0.00
DL	100.00	200.00	500.00		0.10

222 - 04/15/2023: Corn, Late Silage

T3342010A

Sample description: T3342010A
Sample date: 11/03/2023 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	11,860.00	2,760.00	21,000.00	170.00	0.00
DL	100.00	200.00	500.00		0.10

223 - 04/01/2023: Corn, Late Silage

T3342010B

Sample description: T3342010B
Sample date: 11/03/2023 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	16,230.00	2,700.00	22,070.00	180.00	0.00
DL	100.00	200.00	500.00		0.10

224 - 05/02/2023: Corn, Late Silage

T3342010C

Sample description: T3342010C

Sample date: 11/03/2023 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	16,920.00	3,150.00	21,330.00	100.00	0.00
DL	100.00	200.00	500.00		0.10

225 - 05/01/2023: Corn, Late Silage

T3342010D

Sample description: T3342010D

Sample date: 11/03/2023 Source of analysis: Lab Analysis Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	15,010.00	2,910.00	19,340.00	90.00	0.00
DL	100.00	200.00	500.00		0.10

227 - 05/06/2023: Corn, Late Silage

T3342010E

Sample description: T3342010E

Sample date: 11/03/2023 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	17,850.00	3,290.00	18,510.00	110.00	0.00
DL	100.00	200.00	500.00		0.10

228 - 05/01/2023: Corn, Late Silage

T3342010F

Sample description: T3342010F

Sample date: 11/03/2023 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	16,770.00	3,090.00	21,350.00	110.00	0.00
DL	100.00	200.00	500.00		0.10

222 - 10/15/2022: Triticale

T3139029A

Sample description: T3139029A

Sample date: 05/15/2023 Source of analysis: Lab Analysis Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	19,500.00	4,200.00	57,000.00	0.42	0.00
DL	100.00	200.00	500.00		0.10

223 - 11/01/2022: Triticale

T3139029B

Sample description: T3139029B

Sample date: 05/15/2023 Source of analysis: Lab Analysis Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	19,800.00	4,700.00	68,000.00	0.34	0.00
DL	100.00	200.00	500.00		0.10

224 - 11/01/2022: Triticale

T3139029C

Sample description: T3139029C
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	18,800.00	4,600.00	65,000.00	0.48	0.00
DL	100.00	200.00	500.00		0.10

225 - 11/01/2022: Triticale

T3139029D

Sample description: T3139029D
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	18,500.00	4,600.00	64,000.00	0.37	0.00
DL	100.00	200.00	500.00		0.10

226 - 10/16/2022: Triticale

T3139029E

Sample description: T3139029E

Sample date: 05/15/2023 Source of analysis: Lab Analysis Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	21,300.00	4,600.00	64,000.00	0.40	0.00
DL	100.00	200.00	500.00		0.10

227 - 11/01/2022: Triticale

T3139029F

Sample description: T3139029F

Sample date: 05/15/2023 Source of analysis: Lab Analysis Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	19,600.00	4,300.00	58,700.00	0.39	0.00
DL	100.00	200.00	500.00		0.10

228 - 11/01/2022: Triticale

T3139030A

Sample description: T3139030A

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	17,500.00	3,300.00	44,900.00	0.05	0.00
DL	100.00	200.00	500.00		0.10

222 - 08/05/2023: Sudan

T3342008A

Sample description: T3342008A

Sample date: 11/03/2023 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	14,510.00	3,040.00	40,070.00	530.00	0.00
DL	100.00	200.00	500.00		0.10

226 - 06/01/2023: Sudan

ATS-12110015A

Sample description: ATS-12110015A

Sample date: 10/25/2023 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	6,900.00	1,000.00	6,100.00	0.00	3.19
DL	100.00	200.00	500.00		0.10

F. SUBSURFACE (TILE) DRAINAGE ANALYSES

No subsurface (tile) drainage analyses entered.

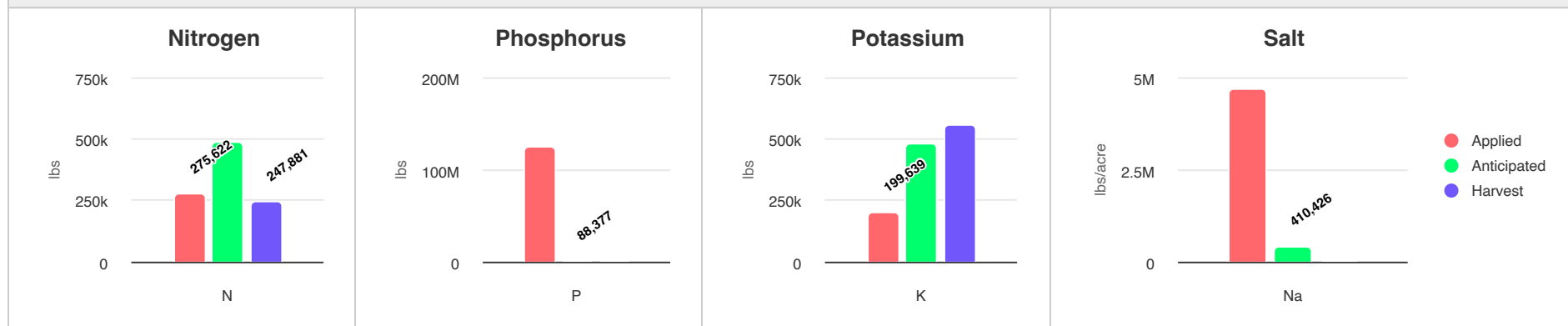
NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

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

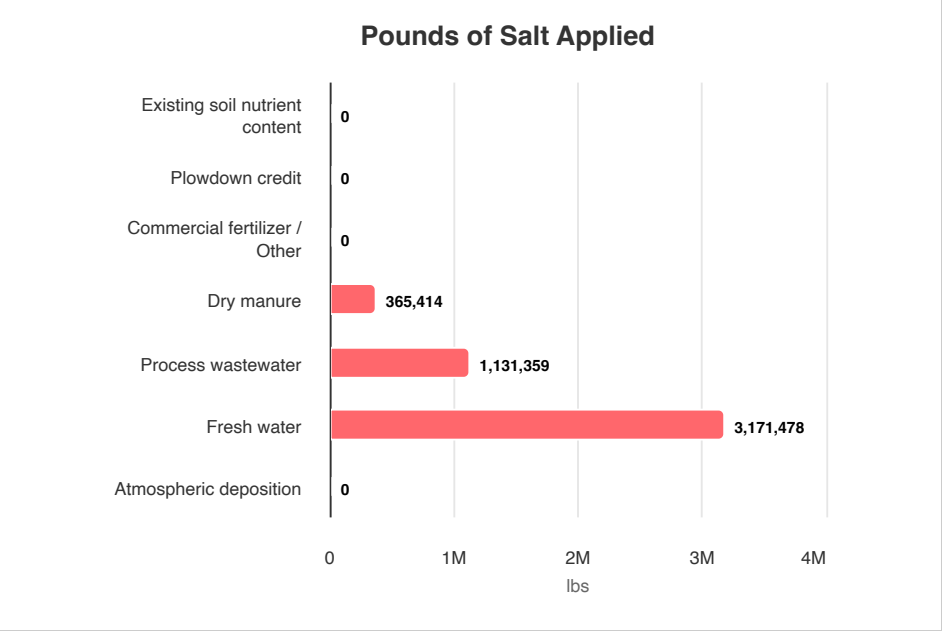
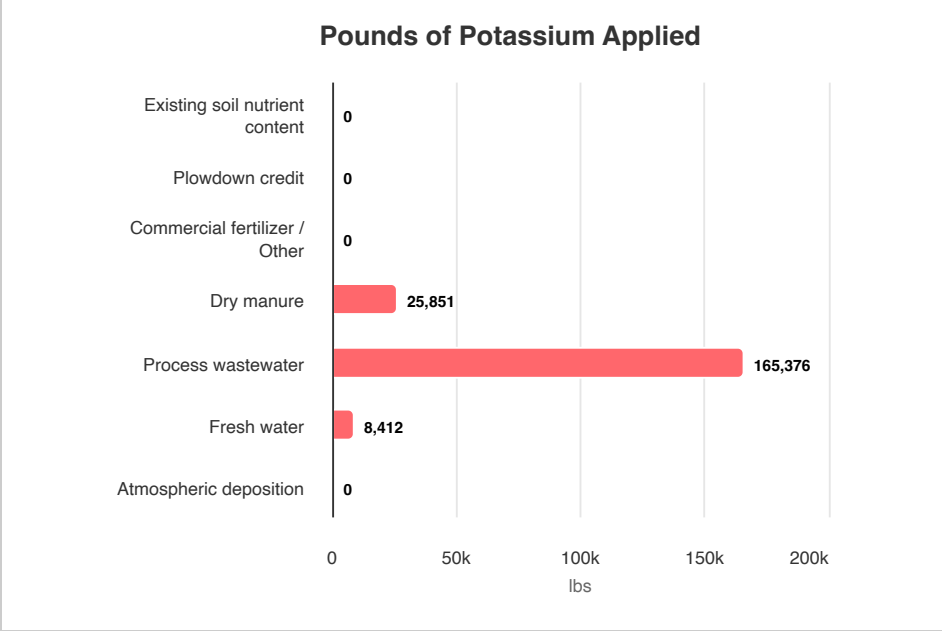
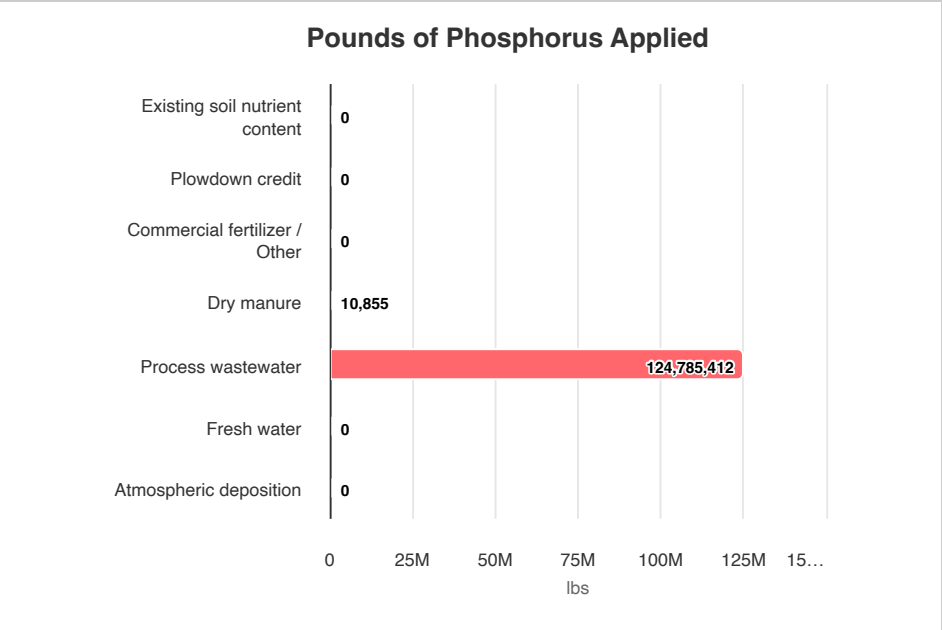
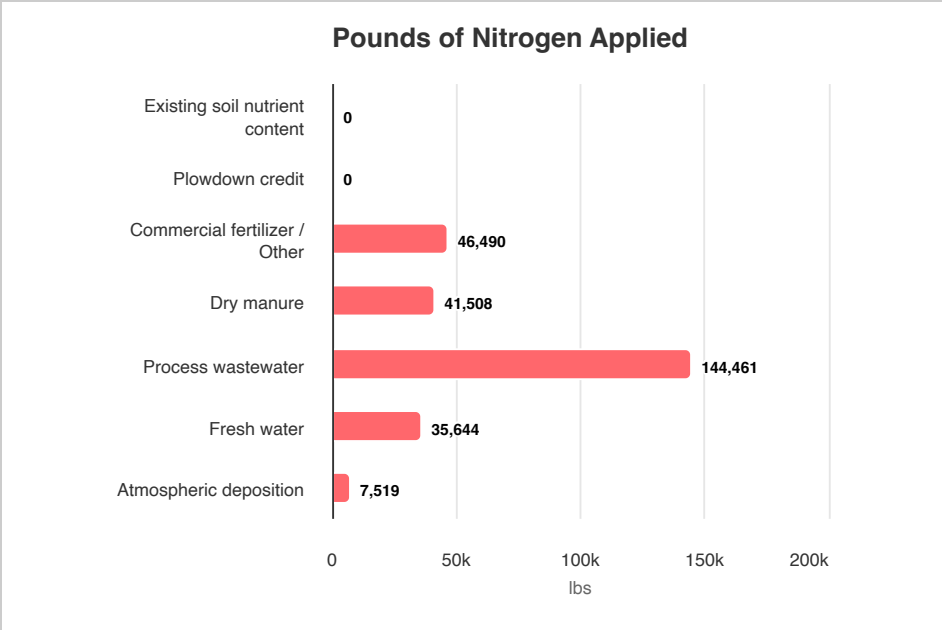
	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	46,490.35	0.00	0.00	0.00
Dry manure	41,508.46	10,854.64	25,850.86	184.60
Process wastewater	144,460.68	124,785,411.98	165,375.97	1,991.66
Fresh water	35,643.55	0.00	8,412.29	3,242.35
Atmospheric deposition	7,518.98	0.00	0.00	0.00
Total nutrients applied	275,622.02	124,796,266.62	199,639.12	4,668,250.85
Anticipated crop nutrient removal	483,728.38	88,376.99	482,292.36	410,426.20
Actual crop nutrient removal	247,881.30	48,296.90	554,124.50	17,161.71
Nutrient balance	27,740.72	124,747,969.72	-354,485.38	4,651,089.14
Applied to removed ratio	1.11	2,583.94	0.36	272.02

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
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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>
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ADDITIONAL NOTES

A. NOTES

No notes entered for this annual report.

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

Manuel Rosa Jr.

PRINT OR TYPE NAME

6/29/2024

DATE



SIGNATURE OF OPERATOR OF FACILITY

Manuel Rosa Jr.

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: Manuel Rosa Jr.
Facility Name: Faial Farms 2
Facility Address: 18683 Magnolia Ave
Facility City/State: Shafter, CA 93263

Contact:

Name: Manuel Rosa Jr.
Number: (661) 667-1016

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: T/M Composting
Facility Address: 4322 Saco rd.
Facility City/State: Bakersfield, CA 93308

Contact:

Name: Trina Payne
Number: 800-995-8331

Manure Destination Composting Facility

Destination Information:

Name: T/M Composting
Facility Address: 4322 Saco Rd,
Facility City/State: Bakersfield, CA

Contact:

Name: Trina Payne
Number: 800 995 8331

Signature of Owner:



Date:

12/30/2023

Dates Hauled / Transferred	Amount Hauled / Transferred	Units	Moisture %
Jun 1, 2023 - Jun, 30 2023	6,374	ton	67 %
Jul 1, 2023 - Jul, 31 2023	6,947	ton	68 %
Aug 1, 2023 - Aug, 31 2023	6,170	ton	66 %
Total	19,491		

Signature of Hauler:



Date:

12/30/2023

**Denele Analytical, Inc.**

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

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

Compliance Analysis Report

Customer

Faial Farms
PO Box 456
Arvin, CA 93203

Grower**Consultant:**

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

PURCHASE ORDER: 2

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

SUBMITTED BY: Courier

ANALYZED DATE: 8/18/23

Boron (B)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
F2 #1	T3228016A	Boron (B)	EPA 200.7	0.084	ppm

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

**Denele Analytical, Inc.**

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Compliance Analysis Report

Customer

Faial Farms
PO Box 456
Arvin, CA 93203

Grower**Consultant:**

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

PURCHASE ORDER: 2

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

SUBMITTED BY: Courier

ANALYZED DATE: 8/18/23

Irrigation /Ground Water (H14)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
F2 #1	T3228016A	Electrical Conductivity (EC)	EPA 120.1 and	0.679	mmhos/cm
		Bicarbonate Alkalinity (ALK-B)	SM 2320B-2011	28.0	mg/L
		Carbonate Alkalinity (Carb)	SM 2320B-2011	< 2.00	mg/L
		Sulfate (SO ₄)	EPA 375.2	57.3	mg/L
		Sodium (Na)	EPA 200.7	83.4	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	2.02	mg/L
		Total Dissolved Solids (TDS)	SM 2540 C-1997 and	300	mg/L
		Calcium (Ca)	EPA 200.7	21.3	mg/L
		Chloride (Cl)	SM 4500-Cl D-2011	98.9	mg/L
		Soluble Salts (SALT-SOL)	Calculation	435	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	Sample mg/L	Dup mg/L	RPD %
Ammonia Nitrogen (NH ₃ -N)	97.8	100 (T3228016A)	102 (T3228016A)			1.78
Calcium (Ca)	92.3	90.9 (T3228021A)	93.1 (T3228021A)			2.36
Chloride (Cl)	103	96.4 (T3228016A)	96.9 (T3228016A)			0.559
Magnesium (Mg)	92.1	91.3 (T3228021A)	95.2 (T3228021A)			4.24
Nitrate Nitrogen (NO ₃ -N)	105	100 (T3228016A)	96.7 (T3228016A)			3.70
Sodium (Na)	99.4	78.9 (T3228021A)	85.1 (T3228021A)			7.63
Sulfate (SO ₄)	103	114 (T3228016A)	107 (T3228016A)			5.66
Total Dissolved Solids (TDS)	109			410 (T3228024B)	435 (Dup)	5.92

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

**Denele Analytical, Inc.**

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

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

Compliance Analysis Report

Customer

Faial Farms
PO Box 456
Arvin, CA 93203

Grower**Consultant:**

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

PURCHASE ORDER: 2

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

SUBMITTED BY: Courier

ANALYZED DATE: 8/18/23

pH (pH)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
F2 #1	T3228016A	pH (pH)	SM4500-H+ B-2000	7.4	S.U.

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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PURCHASE ORDER: 2

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ANALYZED DATE: 8/22/23

Total Nitrogen (TN)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
F2 #1	T3228016A	Total Nitrogen (TN)	SM 4500-NH3 D,C	2.02	%

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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ANALYZED DATE: 8/18/23

Boron (B)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
F2 #2	T3228016B	Boron (B)	EPA 200.7	0.081	ppm

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

PURCHASE ORDER: 2

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

SUBMITTED BY: Courier

ANALYZED DATE: 8/18/23

Irrigation /Ground Water (H14)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
F2 #2	T3228016B	Electrical Conductivity (EC)	EPA 120.1 and	1.20	mmhos/cm
		Bicarbonate Alkalinity (ALK-B)	SM 2320B-2011	24.0	mg/L
		Carbonate Alkalinity (Carb)	SM 2320B-2011	< 2.00	mg/L
		Sulfate (SO ₄)	EPA 375.2	133	mg/L
		Sodium (Na)	EPA 200.7	153	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	10.3	mg/L
		Total Dissolved Solids (TDS)	SM 2540 C-1997 and	545	mg/L
		Calcium (Ca)	EPA 200.7	72.3	mg/L
		Chloride (Cl)	SM 4500-Cl D-2011	217	mg/L
		Soluble Salts (SALT-SOL)	Calculation	769	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	Sample mg/L	Dup mg/L	RPD %
Ammonia Nitrogen (NH ₃ -N)	97.8	100 (T3228016A)	102 (T3228016A)			1.78
Calcium (Ca)	92.3	90.9 (T3228021A)	93.1 (T3228021A)			2.36
Chloride (Cl)	103	96.4 (T3228016A)	96.9 (T3228016A)			0.559
Magnesium (Mg)	92.1	91.3 (T3228021A)	95.2 (T3228021A)			4.24
Nitrate Nitrogen (NO ₃ -N)	105	100 (T3228016A)	96.7 (T3228016A)			3.70
Sodium (Na)	99.4	78.9 (T3228021A)	85.1 (T3228021A)			7.63
Sulfate (SO ₄)	103	114 (T3228016A)	107 (T3228016A)			5.66
Total Dissolved Solids (TDS)	109			410 (T3228024B)	435 (Dup)	5.92

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Compliance Analysis Report**Customer**Faial Farms
PO Box 456
Arvin, CA 93203**Grower****Consultant:**Icon Ag
9530 Hageman Rd, Ste B. #292
Bakersfield, CA 93312

PURCHASE ORDER: 2

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

SUBMITTED BY: Courier

ANALYZED DATE: 8/18/23

pH (pH)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
F2 #2	T3228016B	pH (pH)	SM4500-H+ B-2000	7.3	S.U.

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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PURCHASE ORDER: 2

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SUBMITTED BY: Courier

ANALYZED DATE: 8/22/23

Total Nitrogen (TN)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
F2 #2	T3228016B	Total Nitrogen (TN)	SM 4500-NH3 D,C	10.3	%

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

ANALYZED DATE: 8/18/23

Boron (B)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
F2 #3	T3228016C	Boron (B)	EPA 200.7	0.093	ppm

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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ANALYZED DATE: 8/18/23

Irrigation /Ground Water (H14)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
F2 #3	T3228016C	Electrical Conductivity (EC)	EPA 120.1 and	1.06	mmhos/cm
		Bicarbonate Alkalinity (ALK-B)	SM 2320B-2011	30.0	mg/L
		Carbonate Alkalinity (Carb)	SM 2320B-2011	< 2.00	mg/L
		Sulfate (SO ₄)	EPA 375.2	177	mg/L
		Sodium (Na)	EPA 200.7	141	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	5.26	mg/L
		Total Dissolved Solids (TDS)	SM 2540 C-1997 and	535	mg/L
		Calcium (Ca)	EPA 200.7	64.5	mg/L
		Chloride (Cl)	SM 4500-Cl D-2011	156	mg/L
		Soluble Salts (SALT-SOL)	Calculation	675	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	Sample mg/L	Dup mg/L	RPD %
Ammonia Nitrogen (NH ₃ -N)	97.8	100 (T3228016A)	102 (T3228016A)			1.78
Calcium (Ca)	92.3	90.9 (T3228021A)	93.1 (T3228021A)			2.36
Chloride (Cl)	103	96.4 (T3228016A)	96.9 (T3228016A)			0.559
Magnesium (Mg)	92.1	91.3 (T3228021A)	95.2 (T3228021A)			4.24
Nitrate Nitrogen (NO ₃ -N)	105	100 (T3228016A)	96.7 (T3228016A)			3.70
Sodium (Na)	99.4	78.9 (T3228021A)	85.1 (T3228021A)			7.63
Sulfate (SO ₄)	103	114 (T3228016A)	107 (T3228016A)			5.66
Total Dissolved Solids (TDS)	109			410 (T3228024B)	435 (Dup)	5.92

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Compliance Analysis Report

Customer

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Arvin, CA 93203

Grower**Consultant:**

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

PURCHASE ORDER: 2

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

SUBMITTED BY: Courier

ANALYZED DATE: 8/18/23

pH (pH)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
F2 #3	T3228016C	pH (pH)	SM4500-H+ B-2000	7.4	S.U.

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

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SUBMITTED BY: Courier

ANALYZED DATE: 8/22/23

Total Nitrogen (TN)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
F2 #3	T3228016C	Total Nitrogen (TN)	SM 4500-NH3 D,C	5.26	%

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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ANALYZED DATE: 8/18/23

Boron (B)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
F2 #4	T3228016D	Boron (B)	EPA 200.7	0.088	ppm

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

ANALYZED DATE: 8/18/23

Irrigation /Ground Water (H14)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
F2 #4	T3228016D	Electrical Conductivity (EC)	EPA 120.1 and	0.931	mmhos/cm
		Bicarbonate Alkalinity (ALK-B)	SM 2320B-2011	24.0	mg/L
		Carbonate Alkalinity (Carb)	SM 2320B-2011	< 2.00	mg/L
		Sulfate (SO ₄)	EPA 375.2	121	mg/L
		Sodium (Na)	EPA 200.7	137	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	3.36	mg/L
		Total Dissolved Solids (TDS)	SM 2540 C-1997 and	415	mg/L
		Calcium (Ca)	EPA 200.7	39.3	mg/L
		Chloride (Cl)	SM 4500-Cl D-2011	154	mg/L
		Soluble Salts (SALT-SOL)	Calculation	596	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	Sample mg/L	Dup mg/L	RPD %
Ammonia Nitrogen (NH ₃ -N)	97.8	100 (T3228016A)	102 (T3228016A)			1.78
Calcium (Ca)	92.3	90.9 (T3228021A)	93.1 (T3228021A)			2.36
Chloride (Cl)	103	96.4 (T3228016A)	96.9 (T3228016A)			0.559
Magnesium (Mg)	92.1	91.3 (T3228021A)	95.2 (T3228021A)			4.24
Nitrate Nitrogen (NO ₃ -N)	105	100 (T3228016A)	96.7 (T3228016A)			3.70
Sodium (Na)	99.4	78.9 (T3228021A)	85.1 (T3228021A)			7.63
Sulfate (SO ₄)	103	114 (T3228016A)	107 (T3228016A)			5.66
Total Dissolved Solids (TDS)	109			410 (T3228024B)	435 (Dup)	5.92

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PURCHASE ORDER: 2

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SUBMITTED BY: Courier

ANALYZED DATE: 8/16/23

Icon Sampling Fee (ISF)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
F2 #4	T3228016D	Icon Sampling Fee (ISF)	1664B	0.000	N/A

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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ANALYZED DATE: 8/18/23

pH (pH)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
F2 #4	T3228016D	pH (pH)	SM4500-H+ B-2000	7.3	S.U.

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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ANALYZED DATE: 8/22/23

Total Nitrogen (TN)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
F2 #4	T3228016D	Total Nitrogen (TN)	SM 4500-NH3 D,C	3.36	%

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

Denele

Faial Farms 2

Ranch: Faial Farms #2

***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:				 23-01	CHAIN	Faial Farms 2
Analysis	Weather	Temp (°F)	# of Bags/Bottles	F2 #1		W	
W2	SH	80	1			Ranch: Faial Farms #2 Date: 8-14-2023 8:00 am IW 35.478468, -119.377232	
2.	Location:				 23-01	CHAIN	Faial Farms 2
Analysis	Weather	Temp (°F)	# of Bags/Bottles	F2 #2		W	
W2	SH	80	1			Ranch: Faial Farms #2 Date: 8-14-2023 8:15 am IW 35.478591, -119.381604	
3.	Location:				 23-01	CHAIN	Faial Farms 2
Analysis	Weather	Temp (°F)	# of Bags/Bottles	F2 #3		W	
W2	SH	80	1			Ranch: Faial Farms #2 Date: 8-14-2023 8:30 am IW 35.478583, -119.368621	
4.	Location:				 23-01	CHAIN	Faial Farms 2
Analysis	Weather	Temp (°F)	# of Bags/Bottles	F2 #4		W	
W2	SH	80	1			Ranch: Faial Farms #2 Date: 8-14-2023 8:35 am IW No Lat/Lng	
5.	Location:				Place CHAIN Label Here Place additional labels on sample bags/bottles		
6.	Location:				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		Denele	8-16-23	10:00		
4th						T3228016