

Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

DAIRY FACILITY INFORMATION

A. NAME OF DAIRY OR BUSINESS OPERATING THE DAIRY: RuAnn Dairy

Physical address of dairy:

7285 W Davis AVE

Number and Street

Riverdale

Fresno

93656

City

County

Zip Code

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

Date facility was originally placed in operation: 05/01/1957

Regional Water Quality Control Board Basin Plan designation: Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

0053-0050-0052-0000 0053-0180-0007-0000

B. OPERATORS

Maddox, Patrick

Operator name: Maddox, Patrick

Telephone no.: (559) 867-4457

Landline

Cellular

3899 W Davis AVE

Riverdale

CA

93656

Mailing Address Number and Street

City

State

Zip Code

This operator is responsible for paying permit fees.

C. OWNERS

Maddox, Patrick

Legal owner name: Maddox, Patrick

Telephone no.: (559) 867-4457

Landline

Cellular

3899 W Davis AVE

Riverdale

CA

93656

Mailing Address Number and Street

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AVAILABLE NUTRIENTS

A. HERD INFORMATION

	Milk Cows	Dry Cows	Bred Heifers (15-24 mo.)	Heifers (7-14 mo. to breeding)	Calves (4-6 mo.)	Calves (0-3 mo.)
Number open confinement	550	200	500	415	300	300
Number under roof	550	0	0	0	0	0
Maximum number	1,100	200	500	415	300	300
Average number	1,100	200	500	415	300	300
Avg live weight (lbs)	1,200	1,300	1,000	800		

Predominant milk cow breed: Holstein

Average milk production: 78 pounds per cow per day

B. MANURE GENERATED

Total manure excreted by the herd: 43,430.24 tons per reporting period

Total nitrogen from manure: 536,414.86 lbs per reporting period

After ammonia losses (30% loss applied): 375,490.40 lbs per reporting period

Total phosphorus from manure: 86,619.49 lbs per reporting period

Total potassium from manure: 216,441.75 lbs per reporting period

Total salt from manure: 563,925.00 lbs per reporting period

C. PROCESS WASTEWATER GENERATED

Process wastewater generated: 43,724,000 gallons

Total nitrogen generated: 137,074.41 lbs

$$\begin{aligned}
 & 43,724,000 \text{ gallons applied} \\
 & + 0 \text{ gallons exported} \\
 & - 0 \text{ gallons imported} \\
 & = 43,724,000 \text{ gallons generated}
 \end{aligned}$$

Total phosphorus generated: 17,589.69 lbs

Total potassium generated: 100,349.21 lbs

Total salt generated: 703,781.82 lbs

D. FRESH WATER SOURCES

Source Description	Type
Alyson Dom	Ground water
BArn 1	Ground water
Barn 2	Ground water
Canal	Surface water
Dom West	Ground water

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Source Description	Type
Hill-Dom	Ground water
Polk-Dom	Ground water
Red House	Ground water
Shop Dom	Ground water

E. SUBSURFACE (TILE) DRAINAGE SOURCES

No subsurface (tile) drainage 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

No solid nutrient exports entered.

No liquid nutrient exports entered.

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APPLICATION AREA**A. LIST OF LAND APPLICATION AREAS**

Field name	Controlled acres	Cropable acres	Total harvests	Type of waste applied	Parcel number
1&2	120	120	2	process wastewater	X053-X050-X052-XXXX
11	100	100	0	none	X053-X050-X052-XXXX X053-X180-X007-XXXX
15	40	40	0	none	X053-X061-X010-XXXX
16	40	40	0	none	X053-X061-X010-XXXX
17	40	40	0	none	X053-X061-X010-XXXX
18	40	40	0	none	X053-X061-X010-XXXX
20	80	80	0	none	X053-X061-X010-XXXX
22	70	70	0	none	X053-X170-X047-XXXX X053-X170-X048-XXXX
24	35	35	0	none	X053-X170-X047-XXXX X053-X170-X048-XXXX
25	35	35	0	none	X053-X170-X047-XXXX X053-X170-X048-XXXX
26	50	50	0	none	X053-X170-X034-XXXX
27	40	40	0	none	X053-X170-X034-XXXX
28	40	40	0	none	X053-X170-X034-XXXX
29	30	30	0	none	X053-X170-X034-XXXX
3&4	140	140	0	none	X053-X050-X052-XXXX
30E	40	40	0	none	X053-X170-X034-XXXX
30W	40	40	0	none	X053-X170-X034-XXXX
31	80	80	0	none	X053-X170-X034-XXXX
32	80	80	0	none	X053-X061-X009-XXXX X053-X170-X034-XXXX
33	80	80	0	none	X053-X061-X009-XXXX
36E	65	65	2	none	X053-X070-X045-XXXX
36W	75	75	0	none	X053-X070-X045-XXXX
5	80	80	2	process wastewater	X053-X180-X001-XXXX
6	100	100	2	process wastewater	X053-X180-X001-XXXX
8	40	40	0	none	X053-X180-X007-XXXX
9&10	80	80	0	none	X053-X180-X007-XXXX
A1-N	80	80	2	manure	X053-X180-X009-XXXX
A1-S	40	40	0	none	X053-X180-X009-XXXX
A2	32	32	2	process wastewater	X053-X070-X046-XXXX

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Field name	Controlled acres	Cropable acres	Total harvests	Type of waste applied	Parcel number
A3/A4	135	135	0	none	X053-X061-X003-XXXX X053-X070-X046-XXXX
A5	55	55	2	manure	X053-X070-X046-XXXX
A6	15	15	2	manure	X053-X070-X046-XXXX
Totals for areas that were used for application	482	482	14		
Totals for areas that were not used for application	1,535	1,535	2		
Land application area totals	2,017	2,017	16		

B. CROPS AND HARVESTS

1&2

Field name: 1&2

12/01/2022: Wheat, silage, boot stage

Crop: Wheat, silage, boot stage Acres planted: 120 Plant date: 12/01/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
06/15/2023	1,394.90 ton	Dry-weight		42.9	15,100.00	4,300.00	27,700.00		7.55
Yield (tons/acre) Total N (lbs/acre) Total P (lbs/acre) Total K (lbs/acre) Salt (lbs/acre)									
Anticipated harvest content	16.00	256.00	44.80	192.00	0.00				
Total actual harvest content	11.62	200.45	57.08	367.71	1,002.25				

07/22/2023: Corn, silage

Crop: Corn, silage Acres planted: 120 Plant date: 07/22/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
12/08/2023	2,124.00 ton	Dry-weight		64.4	15,100.00	2,000.00	10,500.00		4.05
Yield (tons/acre) Total N (lbs/acre) Total P (lbs/acre) Total K (lbs/acre) Salt (lbs/acre)									
Anticipated harvest content	28.00	224.00	42.00	184.80	0.00				
Total actual harvest content	17.70	190.30	25.20	132.33	510.40				

36E

Field name: 36E

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36E

11/01/2022: Wheat, silage, boot stage

Crop: Wheat, silage, boot stage Acres planted: 65 Plant date: 11/01/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/31/2023	1,050.30 ton	Dry-weight		66.5	18,400.00	3,800.00	30,600.00		13.60

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
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Anticipated harvest content	16.00	256.00	44.80	192.00	0.00
Total actual harvest content	16.16	199.20	41.14	331.28	1,472.36

06/30/2023: Corn, silage

Crop: Corn, silage Acres planted: 65 Plant date: 06/30/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/23/2023	1,400.80 ton	Dry-weight		62.9	19,100.00	4,100.00	14,400.00		6.57

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
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Anticipated harvest content	28.00	224.00	42.00	184.80	0.00
Total actual harvest content	21.55	305.42	65.56	230.27	1,050.59

5

Field name: 5

11/01/2022: Wheat, silage, boot stage

Crop: Wheat, silage, boot stage Acres planted: 80 Plant date: 11/01/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/31/2023	1,312.00 ton	Dry-weight		61.3	19,300.00	3,600.00	28,800.00		9.30

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
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Anticipated harvest content	16.00	256.00	44.80	192.00	0.00
Total actual harvest content	16.40	244.99	45.70	365.58	1,180.50

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5

06/30/2023: Corn, silage

Crop: Corn, silage Acres planted: 80 Plant date: 06/30/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
12/08/2023	1,600.30 ton	Dry-weight		64.5	15,000.00	2,700.00	14,100.00		7.21

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	224.00	42.00	184.80	0.00
Total actual harvest content	20.00	213.04	38.35	200.26	1,024.01

6

Field name: 6

12/01/2022: Wheat, silage, boot stage

Crop: Wheat, silage, boot stage Acres planted: 100 Plant date: 12/01/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
06/15/2023	1,713.00 ton	Dry-weight		69.3	20,300.00	1,100.00	13,600.00		12.21

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	16.00	256.00	44.80	192.00	0.00
Total actual harvest content	17.13	213.51	11.57	143.04	1,284.23

07/15/2023: Corn, silage

Crop: Corn, silage Acres planted: 100 Plant date: 07/15/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
12/08/2023	1,882.10 ton	Dry-weight		61.4	13,200.00	2,400.00	12,700.00		5.28

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	224.00	42.00	184.80	0.00
Total actual harvest content	18.82	191.79	34.87	184.53	767.17

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A1-NField name: A1-N

11/01/2022: Wheat, silage, boot stage

Crop: Wheat, silage, boot stage Acres planted: 80 Plant date: 11/01/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/15/2023	495.90 ton	Dry-weight		67.1	18,100.00	3,300.00	20,100.00		11.22

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	16.00	256.00	44.80	192.00	0.00
Total actual harvest content	6.20	73.83	13.46	81.98	457.64

06/30/2023: Corn, silage

Crop: Corn, silage Acres planted: 80 Plant date: 06/30/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/23/2023	776.20 ton	Dry-weight		56.2	18,900.00	4,100.00	16,700.00		4.75

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	224.00	42.00	184.80	0.00
Total actual harvest content	9.70	160.64	34.85	141.94	403.72

A2Field name: A2

11/01/2022: Wheat, silage, boot stage

Crop: Wheat, silage, boot stage Acres planted: 32 Plant date: 11/01/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/31/2023	458.80 ton	Dry-weight		67.9	17,900.00	3,700.00	24,900.00		12.03

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	16.00	256.00	44.80	192.00	0.00
Total actual harvest content	14.34	164.76	34.06	229.20	1,107.32

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A2

06/30/2023: Corn, silage

Crop: Corn, silage Acres planted: 32 Plant date: 06/30/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/23/2023	700.40 ton	Dry-weight		61.7	26,500.00	3,600.00	14,200.00		5.07
Anticipated harvest content									
Total actual harvest content									

A5

Field name: A5

12/01/2022: Wheat, silage, boot stage

Crop: Wheat, silage, boot stage Acres planted: 55 Plant date: 12/01/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
06/16/2023	671.80 ton	Dry-weight		47.0	14,600.00	3,300.00	14,700.00		11.19
Anticipated harvest content									
Total actual harvest content									

07/16/2023: Corn, silage

Crop: Corn, silage Acres planted: 55 Plant date: 07/16/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
12/08/2023	1,010.40 ton	Dry-weight		63.3	14,000.00	3,100.00	11,500.00		5.05
Anticipated harvest content									
Total actual harvest content									

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A6

Field name: A6

11/01/2022: Wheat, silage, boot stage

Crop: Wheat, silage, boot stage Acres planted: 15 Plant date: 11/01/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/31/2023	371.40 ton	Dry-weight		64.0	13,800.00	3,200.00	26,400.00		8.54

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	16.00	256.00	44.80	192.00	0.00
Total actual harvest content	24.76	246.02	57.05	470.64	1,522.44

07/01/2023: Corn, silage

Crop: Corn, silage Acres planted: 15 Plant date: 07/01/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/23/2023	258.30 ton	Dry-weight		59.1	17,800.00	4,000.00	18,400.00		5.64

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	224.00	42.00	184.80	0.00
Total actual harvest content	17.22	250.73	56.34	259.18	794.45

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NUTRIENT BUDGET**A. LAND APPLICATIONS**

1&2 - 12/01/2022: Wheat, silage, boot stage

Field name: 1&2

Crop: Wheat, silage, boot stage Plant date: 12/01/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
04/22/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	49.72	4.36	24.92	157.44	1,350,000.00 gal
Canal	Surface water	0.00	0.00	0.00	2.96	3,552,000.00 gal
Application event totals		49.72	4.36	24.92	160.40	
04/29/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	49.72	4.36	24.92	157.44	1,350,000.00 gal
Canal	Surface water	0.00	0.00	0.00	3.61	4,320,000.00 gal
Application event totals		49.72	4.36	24.92	161.04	
05/15/2023	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
WW	Process wastewater	49.72	4.36	24.92	157.44	1,350,000.00 gal
Application event totals		49.72	4.36	24.92	157.44	
05/24/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	49.72	4.36	24.92	157.44	1,350,000.00 gal
Canal	Surface water	0.00	0.00	0.00	2.96	3,552,000.00 gal
Application event totals		49.72	4.36	24.92	160.40	

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1&2 - 12/01/2022: Wheat, silage, boot stage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
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
WW	Process wastewater	49.72	4.36	24.92	157.44	1,350,000.00 gal
Canal	Surface water	0.00	0.00	0.00	2.96	3,552,000.00 gal
Application event totals		49.72	4.36	24.92	160.40	

1&2 - 07/22/2023: Corn, silage

Field name: 1&2

Crop: Corn, silage

Plant date: 07/22/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
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
WW	Process wastewater	60.59	11.21	67.88	494.19	3,360,000.00 gal
Canal	Surface water	0.00	0.00	0.00	9.05	10,840,000.00 gal
Application event totals		60.59	11.21	67.88	503.24	
07/12/2023	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
Canal	Surface water	0.00	0.00	0.00	9.05	10,840,000.00 gal
Application event totals		0.00	0.00	0.00	9.05	
08/09/2023	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
Canal	Surface water	0.00	0.00	0.00	9.05	10,840,000.00 gal
Application event totals		0.00	0.00	0.00	9.05	

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1&2 - 07/22/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
08/23/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	60.59	11.21	67.88	494.19	3,360,000.00 gal
Canal	Surface water	0.00	0.00	0.00	9.05	10,840,000.00 gal
Application event totals		60.59	11.21	67.88	503.24	
09/09/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	60.59	11.21	67.88	494.19	3,360,000.00 gal
Canal	Surface water	0.00	0.00	0.00	9.05	10,840,000.00 gal
Application event totals		60.59	11.21	67.88	503.24	
09/30/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	9.05	10,840,000.00 gal
Application event totals		0.00	0.00	0.00	9.05	
10/10/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	60.59	11.21	67.88	494.19	3,360,000.00 gal
Canal	Surface water	0.00	0.00	0.00	9.05	10,840,000.00 gal
Application event totals		60.59	11.21	67.88	503.24	

36E - 11/01/2022: Wheat, silage, boot stage

Field name: 36E

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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36E - 11/01/2022: Wheat, silage, boot stage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
03/02/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	7.03	4,560,000.00 gal
Application event totals		0.00	0.00	0.00	7.03	
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
Canal	Surface water	0.00	0.00	0.00	7.03	4,560,000.00 gal
Application event totals		0.00	0.00	0.00	7.03	
04/11/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	7.03	4,560,000.00 gal
Application event totals		0.00	0.00	0.00	7.03	
04/21/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	7.03	4,560,000.00 gal
Application event totals		0.00	0.00	0.00	7.03	
04/30/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	7.03	4,560,000.00 gal
Application event totals		0.00	0.00	0.00	7.03	

36E - 06/30/2023: Corn, silage

Field name: 36E

Crop: Corn, silage

Plant date: 06/30/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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36E - 06/30/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
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
Canal	Surface water	0.00	0.00	0.00	18.19	11,808,000.00 gal
Application event totals		0.00	0.00	0.00	18.19	
07/19/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	18.19	11,808,000.00 gal
Application event totals		0.00	0.00	0.00	18.19	
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
Canal	Surface water	0.00	0.00	0.00	18.19	11,808,000.00 gal
Application event totals		0.00	0.00	0.00	18.19	
08/13/2023	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
Canal	Surface water	0.00	0.00	0.00	18.19	11,808,000.00 gal
Application event totals		0.00	0.00	0.00	18.19	
08/29/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	18.19	11,808,000.00 gal
Application event totals		0.00	0.00	0.00	18.19	
09/19/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	18.19	11,808,000.00 gal
Application event totals		0.00	0.00	0.00	18.19	

5 - 11/01/2022: Wheat, silage, boot stage

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5 - 11/01/2022: Wheat, silage, boot stage

Field name: 5

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
01/03/2023	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
WW	Process wastewater	59.67	5.23	29.91	188.93	1,080,000.00 gal
Application event totals		59.67	5.23	29.91	188.93	
01/30/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	59.67	5.23	29.91	188.93	1,080,000.00 gal
Application event totals		59.67	5.23	29.91	188.93	
02/17/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	59.67	5.23	29.91	188.93	1,080,000.00 gal
Application event totals		59.67	5.23	29.91	188.93	
02/21/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	59.67	5.23	29.91	188.93	1,080,000.00 gal
Application event totals		59.67	5.23	29.91	188.93	
03/09/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	59.67	5.23	29.91	188.93	1,080,000.00 gal
Application event totals		59.67	5.23	29.91	188.93	
03/24/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	5.62	4,488,000.00 gal
Application event totals		0.00	0.00	0.00	5.62	

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5 - 11/01/2022: Wheat, silage, boot stage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
04/14/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	5.62	4,488,000.00 gal
Application event totals		0.00	0.00	0.00	5.62	
04/30/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	5.62	4,488,000.00 gal
Application event totals		0.00	0.00	0.00	5.62	

5 - 06/30/2023: Corn, silage

Field name: 5

Crop: Corn, silage

Plant date: 06/30/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
06/27/2023	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
WW	Process wastewater	139.57	25.83	156.36	1,138.40	5,160,000.00 gal
Canal	Surface water	0.00	0.00	0.00	12.44	9,940,000.00 gal
Application event totals		139.57	25.83	156.36	1,150.85	
07/30/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	12.44	9,940,000.00 gal
Application event totals		0.00	0.00	0.00	12.44	
08/08/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	12.44	9,940,000.00 gal
Application event totals		0.00	0.00	0.00	12.44	

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5 - 06/30/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
08/18/2023	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
WW	Process wastewater	107.38	30.01	137.85	1,201.38	5,160,000.00 gal
Canal	Surface water	0.00	0.00	0.00	12.44	9,940,000.00 gal
Application event totals		107.38	30.01	137.85	1,213.82	
09/04/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	12.44	9,940,000.00 gal
Application event totals		0.00	0.00	0.00	12.44	
09/22/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	12.44	9,940,000.00 gal
Application event totals		0.00	0.00	0.00	12.44	

6 - 12/01/2022: Wheat, silage, boot stage

Field name: 6

Crop: Wheat, silage, boot stage

Plant date: 12/01/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
01/10/2023	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
WW	Process wastewater	70.98	6.23	35.58	224.75	1,606,000.00 gal
Application event totals		70.98	6.23	35.58	224.75	
01/25/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	70.98	6.23	35.58	224.75	1,606,000.00 gal
Application event totals		70.98	6.23	35.58	224.75	

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6 - 12/01/2022: Wheat, silage, boot stage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
03/04/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	7.21	7,200,000.00 gal
Application event totals		0.00	0.00	0.00	7.21	
03/14/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	7.21	7,200,000.00 gal
Application event totals		0.00	0.00	0.00	7.21	
03/28/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	70.98	6.23	35.58	224.75	1,606,000.00 gal
Application event totals		70.98	6.23	35.58	224.75	
04/06/2023	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
WW	Process wastewater	70.98	6.23	35.58	224.75	1,606,000.00 gal
Application event totals		70.98	6.23	35.58	224.75	
04/24/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	7.21	7,200,000.00 gal
Application event totals		0.00	0.00	0.00	7.21	

6 - 07/15/2023: Corn, silage

Field name: 6

Crop: Corn, silage

Plant date: 07/15/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following

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6 - 07/15/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
06/30/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	18.23	18,200,000.00 gal
Application event totals		0.00	0.00	0.00	18.23	
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
Canal	Surface water	0.00	0.00	0.00	18.23	18,200,000.00 gal
Application event totals		0.00	0.00	0.00	18.23	
08/26/2023	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
Canal	Surface water	0.00	0.00	0.00	18.23	18,200,000.00 gal
Application event totals		0.00	0.00	0.00	18.23	
09/07/2023	Shank	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	18.23	18,200,000.00 gal
Application event totals		0.00	0.00	0.00	18.23	
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
Canal	Surface water	0.00	0.00	0.00	18.23	18,200,000.00 gal
Application event totals		0.00	0.00	0.00	18.23	

A1-N - 11/01/2022: Wheat, silage, boot stage

Field name: A1-N

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following

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A1-N - 11/01/2022: Wheat, silage, boot stage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
10/15/2022	Plow/disc	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Dry Manure	Corral solids	90.00	32.50	106.88	2,560.64	250.00 ton
Application event totals		90.00	32.50	106.88	2,560.64	
03/01/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	10.42	8,328,000.00 gal
Application event totals		0.00	0.00	0.00	10.42	
04/07/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	10.42	8,328,000.00 gal
Application event totals		0.00	0.00	0.00	10.42	
04/24/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	10.42	8,328,000.00 gal
Application event totals		0.00	0.00	0.00	10.42	

A1-N - 06/30/2023: Corn, silage

Field name: A1-N

Crop: Corn, silage

Plant date: 06/30/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
06/15/2023	Plow/disc	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Dry Manure	Corral solids	198.00	69.00	378.00	3,782.76	600.00 ton
Application event totals		198.00	69.00	378.00	3,782.76	

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A1-N - 06/30/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
06/18/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	13.54	10,816,000.00 gal
Application event totals		0.00	0.00	0.00	13.54	
07/15/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	13.54	10,816,000.00 gal
Application event totals		0.00	0.00	0.00	13.54	
08/04/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	13.54	10,816,000.00 gal
Application event totals		0.00	0.00	0.00	13.54	
08/17/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	13.54	10,816,000.00 gal
Application event totals		0.00	0.00	0.00	13.54	
08/28/2023	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
Canal	Surface water	0.00	0.00	0.00	13.54	10,816,000.00 gal
Application event totals		0.00	0.00	0.00	13.54	
09/02/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	13.54	10,816,000.00 gal
Application event totals		0.00	0.00	0.00	13.54	

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A1-N - 06/30/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
09/16/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	13.54	10,816,000.00 gal
Application event totals		0.00	0.00	0.00	13.54	

A2 - 11/01/2022: Wheat, silage, boot stage

Field name: A2

Crop: Wheat, silage, boot stage Plant date: 11/01/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
01/27/2023	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
WW	Process wastewater	95.99	8.42	48.12	303.94	695,000.00 gal
Application event totals		95.99	8.42	48.12	303.94	
02/13/2023	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
WW	Process wastewater	95.99	8.42	48.12	303.94	695,000.00 gal
Application event totals		95.99	8.42	48.12	303.94	
03/13/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	21.08	6,736,000.00 gal
Application event totals		0.00	0.00	0.00	21.08	
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
Canal	Surface water	0.00	0.00	0.00	21.08	6,736,000.00 gal
Application event totals		0.00	0.00	0.00	21.08	

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Reporting period 01/01/2023 to 12/31/2023.

A2 - 11/01/2022: Wheat, silage, boot stage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
04/25/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	21.08	6,736,000.00 gal
Application event totals		0.00	0.00	0.00	21.08	

A2 - 06/30/2023: Corn, silage

Field name: A2

Crop: Corn, silage

Plant date: 06/30/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
06/20/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	19.89	6,356,000.00 gal
Application event totals		0.00	0.00	0.00	19.89	
07/18/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	19.89	6,356,000.00 gal
Application event totals		0.00	0.00	0.00	19.89	
07/25/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	19.89	6,356,000.00 gal
Application event totals		0.00	0.00	0.00	19.89	
08/08/2023	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
Canal	Surface water	0.00	0.00	0.00	19.89	6,356,000.00 gal
Application event totals		0.00	0.00	0.00	19.89	

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A2 - 06/30/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
08/24/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	19.89	6,356,000.00 gal
Application event totals		0.00	0.00	0.00	19.89	
09/06/2023	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
Canal	Surface water	0.00	0.00	0.00	19.89	6,356,000.00 gal
Application event totals		0.00	0.00	0.00	19.89	

A5 - 12/01/2022: Wheat, silage, boot stage

Field name: A5

Crop: Wheat, silage, boot stage

Plant date: 12/01/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
04/09/2023	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
Canal	Surface water	0.00	0.00	0.00	12.56	6,896,000.00 gal
Application event totals		0.00	0.00	0.00	12.56	
05/02/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	12.56	6,896,000.00 gal
Application event totals		0.00	0.00	0.00	12.56	

A5 - 07/16/2023: Corn, silage

Field name: A5

Crop: Corn, silage

Plant date: 07/16/2023

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Reporting period 01/01/2023 to 12/31/2023.

A5 - 07/16/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
06/25/2023	Plow/disc	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Dry Manure	Corral solids	240.00	83.64	458.18	4,585.16	500.00 ton
Application event totals		240.00	83.64	458.18	4,585.16	
07/05/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	21.44	11,776,000.00 gal
Application event totals		0.00	0.00	0.00	21.44	
08/07/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	21.44	11,776,000.00 gal
Application event totals		0.00	0.00	0.00	21.44	
08/19/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	21.44	11,776,000.00 gal
Application event totals		0.00	0.00	0.00	21.44	
08/28/2023	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
Canal	Surface water	0.00	0.00	0.00	21.44	11,776,000.00 gal
Application event totals		0.00	0.00	0.00	21.44	
09/13/2023	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
Canal	Surface water	0.00	0.00	0.00	21.44	11,776,000.00 gal
Application event totals		0.00	0.00	0.00	21.44	

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A5 - 07/16/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
09/30/2023	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
Canal	Surface water	0.00	0.00	0.00	21.44	11,776,000.00 gal
Application event totals		0.00	0.00	0.00	21.44	

A6 - 11/01/2022: Wheat, silage, boot stage

Field name: A6

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
10/10/2022	Plow/disc	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Dry Manure	Corral solids	264.00	92.00	504.00	5,043.68	150.00 ton
Application event totals		264.00	92.00	504.00	5,043.68	
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
Canal	Surface water	0.00	0.00	0.00	7.34	1,100,000.00 gal
Application event totals		0.00	0.00	0.00	7.34	
04/08/2023	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
Canal	Surface water	0.00	0.00	0.00	7.34	1,100,000.00 gal
Application event totals		0.00	0.00	0.00	7.34	
05/02/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	7.34	1,100,000.00 gal
Application event totals		0.00	0.00	0.00	7.34	

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Reporting period 01/01/2023 to 12/31/2023.

A6 - 07/01/2023: Corn, silage

Field name: A6

Crop: Corn, silage

Plant date: 07/01/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
06/15/2023	Plow/disc	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Dry Manure	Corral solids	308.00	107.33	588.00	5,884.29	175.00 ton
Application event totals		308.00	107.33	588.00	5,884.29	
06/19/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	16.56	2,480,000.00 gal
Application event totals		0.00	0.00	0.00	16.56	
07/17/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	16.56	2,480,000.00 gal
Application event totals		0.00	0.00	0.00	16.56	
08/08/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	16.56	2,480,000.00 gal
Application event totals		0.00	0.00	0.00	16.56	
08/19/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	16.56	2,480,000.00 gal
Application event totals		0.00	0.00	0.00	16.56	
08/27/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	16.56	2,480,000.00 gal
Application event totals		0.00	0.00	0.00	16.56	

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Reporting period 01/01/2023 to 12/31/2023.

A6 - 07/01/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
09/04/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	16.56	2,480,000.00 gal
Application event totals		0.00	0.00	0.00	16.56	
09/23/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	16.56	2,480,000.00 gal
Application event totals		0.00	0.00	0.00	16.56	

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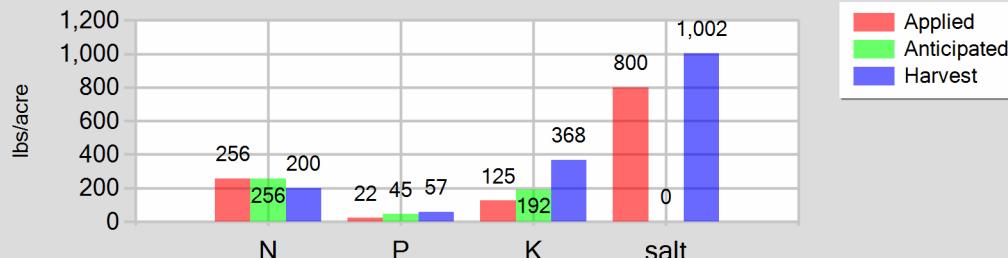
Reporting period 01/01/2023 to 12/31/2023.

B. NUTRIENT BUDGET

1&2 - 12/01/2022: Wheat, silage, boot stage

Field name: 1&2 Crop: Wheat, silage, boot stage Plant date: 12/01/2022

Nutrient budget 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	248.61	21.81	124.62	787.19
Fresh water	0.00	0.00	0.00	12.50
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	255.61	21.81	124.62	799.69
Anticipated crop nutrient removal	256.00	44.80	192.00	0.00
Actual crop nutrient removal	200.45	57.08	367.71	1,002.25
Nutrient balance	55.16	-35.27	-243.09	-202.56
Applied to removed ratio	1.28	0.38	0.34	0.80

Fresh water applied

14,976,000.00 gallons
551.52 acre-inches
4.60 inches/acre

Process wastewater applied

6,750,000.00 gallons
248.58 acre-inches
2.07 inches/acre

Total harvests for the crop

1 harvests

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Reporting period 01/01/2023 to 12/31/2023.

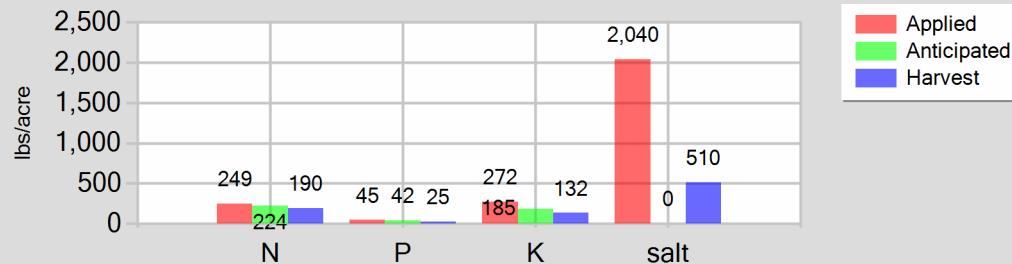
1&2 - 07/22/2023: Corn, silage

Field name: 1&2

Crop: Corn, silage

Plant date: 07/22/2023

Nutrient budget 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	242.35	44.85	271.51	1,976.76
Fresh water	0.00	0.00	0.00	63.32
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	249.35	44.85	271.51	2,040.09
Anticipated crop nutrient removal	224.00	42.00	184.80	0.00
Actual crop nutrient removal	190.30	25.20	132.33	510.40
Nutrient balance	59.06	19.65	139.19	1,529.69
Applied to removed ratio	1.31	1.78	2.05	4.00

Fresh water applied

75,880,000.00 gallons
2,794.40 acre-inches
23.29 inches/acre

Process wastewater applied

13,440,000.00 gallons
494.95 acre-inches
4.12 inches/acre

Total harvests for the crop

1 harvests

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Reporting period 01/01/2023 to 12/31/2023.

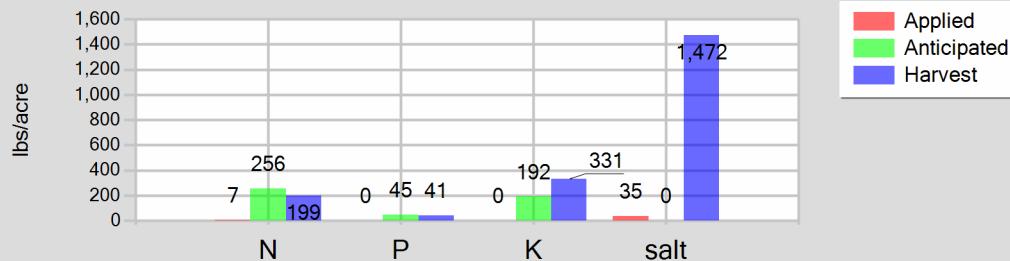
36E - 11/01/2022: Wheat, silage, boot stage

Field name: 36E

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022

Nutrient budget in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	0.00	0.00	0.00	0.00
Fresh water	0.00	0.00	0.00	35.13
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	7.00	0.00	0.00	35.13
Anticipated crop nutrient removal	256.00	44.80	192.00	0.00
Actual crop nutrient removal	199.20	41.14	331.28	1,472.36
Nutrient balance	-192.20	-41.14	-331.28	-1,437.23
Applied to removed ratio	0.04	0.00	0.00	0.02

Fresh water applied

22,800,000.00 gallons
839.65 acre-inches
12.92 inches/acre

Process wastewater applied

0.00 gallons
0.00 acre-inches
0.00 inches/acre

Total harvests for the crop

1 harvests

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Reporting period 01/01/2023 to 12/31/2023.

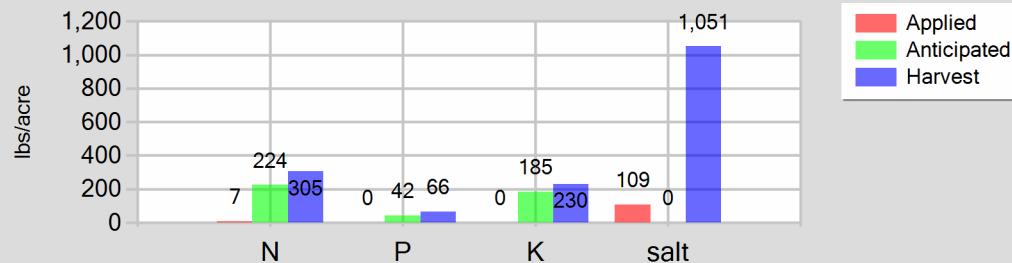
36E - 06/30/2023: Corn, silage

Field name: 36E

Crop: Corn, silage

Plant date: 06/30/2023

Nutrient budget in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	0.00	0.00	0.00	0.00
Fresh water	0.00	0.00	0.00	109.15
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	7.00	0.00	0.00	109.15
Anticipated crop nutrient removal	224.00	42.00	184.80	0.00
Actual crop nutrient removal	305.42	65.56	230.27	1,050.59
Nutrient balance	-298.42	-65.56	-230.27	-941.44
Applied to removed ratio	0.02	0.00	0.00	0.10

Fresh water applied

70,848,000.00 gallons
2,609.09 acre-inches
40.14 inches/acre

Process wastewater applied

0.00 gallons
0.00 acre-inches
0.00 inches/acre

Total harvests for the crop

1 harvests

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Reporting period 01/01/2023 to 12/31/2023.

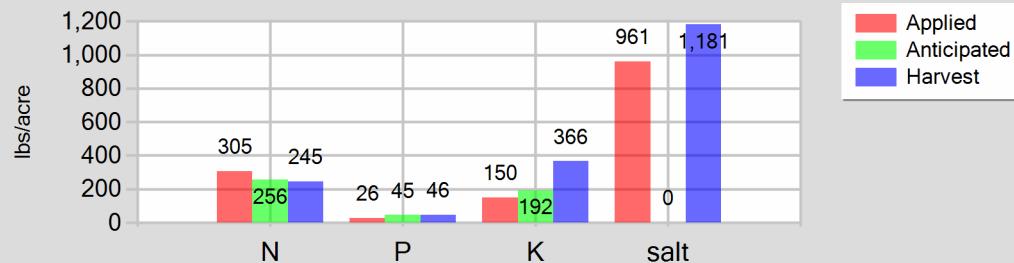
5 - 11/01/2022: Wheat, silage, boot stage

Field name: 5

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022

Nutrient budget in lbs/acre



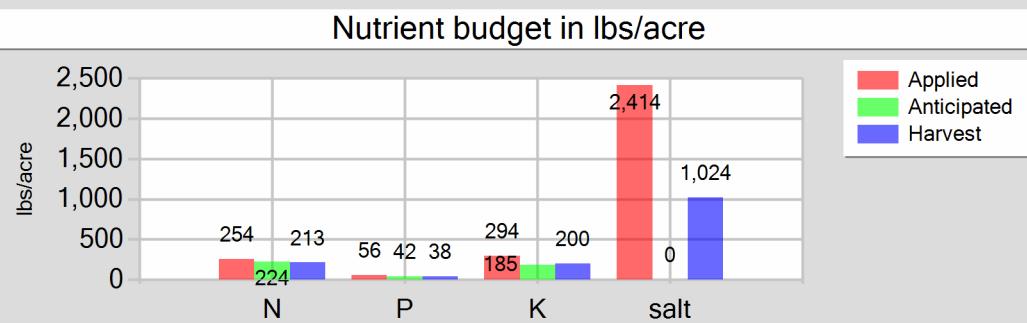
	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	13,464,000.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	495.83 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	6.20 inches/acre
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	298.33	26.17	149.55	944.63	5,400,000.00 gallons
Fresh water	0.00	0.00	0.00	16.85	198.86 acre-inches
Atmospheric deposition	7.00	0.00	0.00	0.00	2.49 inches/acre
Total nutrients applied	305.33	26.17	149.55	961.49	
Anticipated crop nutrient removal	256.00	44.80	192.00	0.00	
Actual crop nutrient removal	244.99	45.70	365.58	1,180.50	
Nutrient balance	60.35	-19.53	-216.03	-219.02	
Applied to removed ratio	1.25	0.57	0.41	0.81	
Total harvests for the crop					1 harvests

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5 - 06/30/2023: Corn, silage

Field name: 5 Crop: Corn, silage Plant date: 06/30/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	246.95	55.84	294.21	2,339.78
Fresh water	0.00	0.00	0.00	74.65
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	253.95	55.84	294.21	2,414.44
Anticipated crop nutrient removal	224.00	42.00	184.80	0.00
Actual crop nutrient removal	213.04	38.35	200.26	1,024.01
Nutrient balance	40.91	17.49	93.96	1,390.43
Applied to removed ratio	1.19	1.46	1.47	2.36

Fresh water applied

59,640,000.00 gallons
2,196.34 acre-inches
27.45 inches/acre

Process wastewater applied

10,320,000.00 gallons
380.05 acre-inches
4.75 inches/acre

Total harvests for the crop

1 harvests

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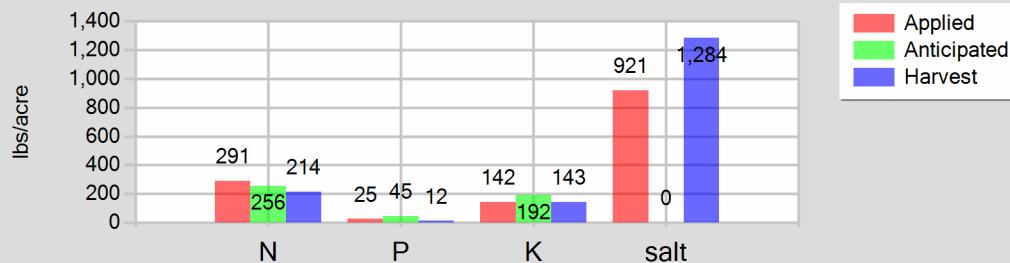
6 - 12/01/2022: Wheat, silage, boot stage

Field name: 6

Crop: Wheat, silage, boot stage

Plant date: 12/01/2022

Nutrient budget in lbs/acre



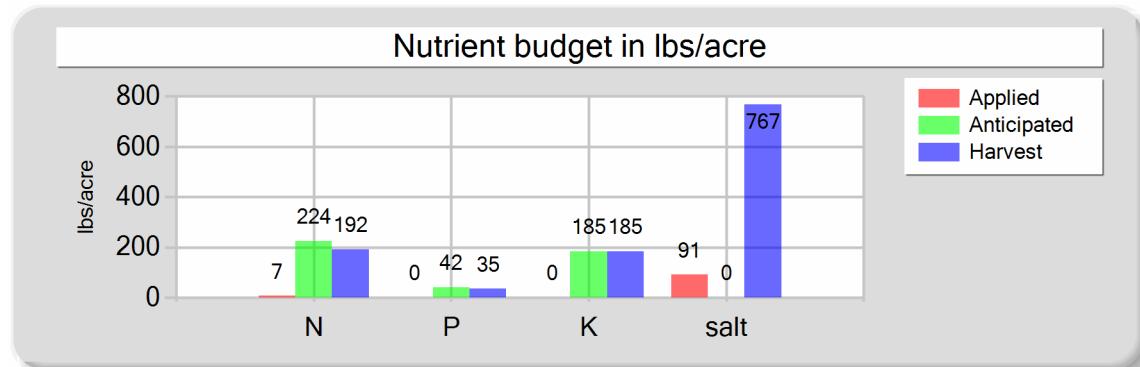
	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	21,600,000.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	795.45 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	7.95 inches/acre
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	283.93	24.91	142.32	899.01	6,424,000.00 gallons
Fresh water	0.00	0.00	0.00	21.63	236.57 acre-inches
Atmospheric deposition	7.00	0.00	0.00	0.00	2.37 inches/acre
Total nutrients applied	290.93	24.91	142.32	920.64	
Anticipated crop nutrient removal	256.00	44.80	192.00	0.00	
Actual crop nutrient removal	213.51	11.57	143.04	1,284.23	
Nutrient balance	77.41	13.34	-0.72	-363.58	
Applied to removed ratio	1.36	2.15	0.99	0.72	
Total harvests for the crop					1 harvests

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Reporting period 01/01/2023 to 12/31/2023.

6 - 07/15/2023: Corn, silage

Field name: 6 Crop: Corn, silage Plant date: 07/15/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	0.00	0.00	0.00	0.00
Fresh water	0.00	0.00	0.00	91.13
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	7.00	0.00	0.00	91.13
Anticipated crop nutrient removal	224.00	42.00	184.80	0.00
Actual crop nutrient removal	191.79	34.87	184.53	767.17
Nutrient balance	-184.79	-34.87	-184.53	-676.05
Applied to removed ratio	0.04	0.00	0.00	0.12

Fresh water applied
91,000,000.00 gallons
3,351.22 acre-inches
33.51 inches/acre

Process wastewater applied
0.00 gallons
0.00 acre-inches
0.00 inches/acre

Total harvests for the crop
1 harvests

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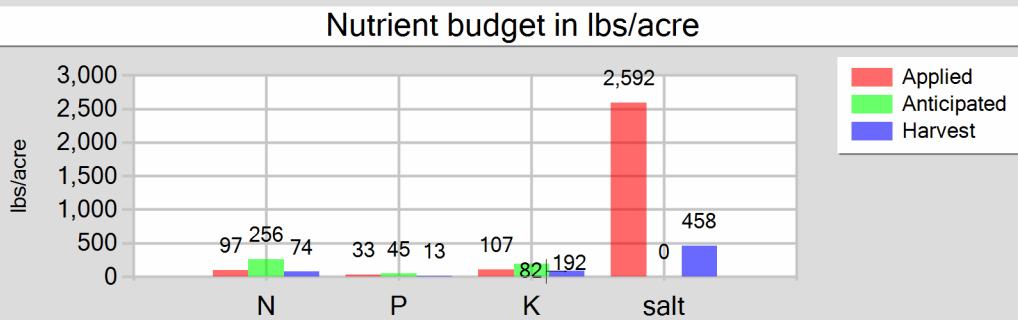
Reporting period 01/01/2023 to 12/31/2023.

A1-N - 11/01/2022: Wheat, silage, boot stage

Field name: A1-N

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022



	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	90.00	32.50	106.88	2,560.64
Process wastewater	0.00	0.00	0.00	0.00
Fresh water	0.00	0.00	0.00	31.27
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	97.00	32.50	106.88	2,591.92
Anticipated crop nutrient removal	256.00	44.80	192.00	0.00
Actual crop nutrient removal	73.83	13.46	81.98	457.64
Nutrient balance	23.17	19.04	24.89	2,134.28
Applied to removed ratio	1.31	2.41	1.30	5.66

Fresh water applied

24,984,000.00 *gallons*
920.08 *acre-inches*
11.50 *inches/acre*

Process wastewater applied

0.00 *gallons*
0.00 *acre-inches*
0.00 *inches/acre*

Total harvests for the crop

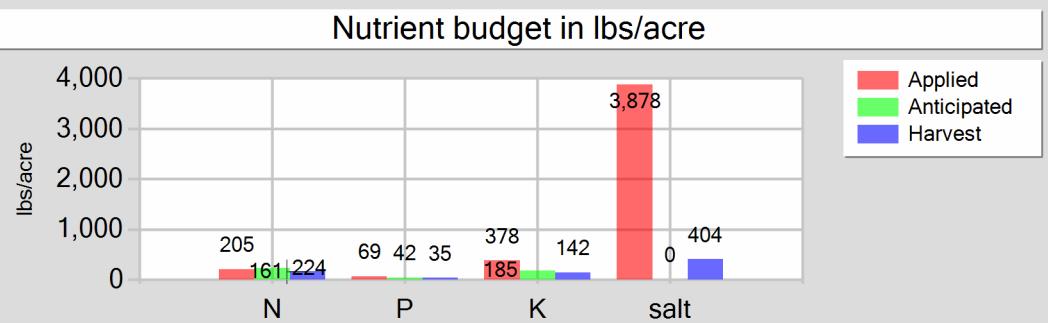
1 *harvests*

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Reporting period 01/01/2023 to 12/31/2023.

A1-N - 06/30/2023: Corn, silage

Field name: A1-N Crop: Corn, silage Plant date: 06/30/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	198.00	69.00	378.00	3,782.76
Process wastewater	0.00	0.00	0.00	0.00
Fresh water	0.00	0.00	0.00	94.77
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	205.00	69.00	378.00	3,877.53
Anticipated crop nutrient removal	224.00	42.00	184.80	0.00
Actual crop nutrient removal	160.64	34.85	141.94	403.72
Nutrient balance	44.36	34.15	236.06	3,473.81
Applied to removed ratio	1.28	1.98	2.66	9.60

Fresh water applied
75,712,000.00 gallons
2,788.22 acre-inches
34.85 inches/acre

Process wastewater applied
0.00 gallons
0.00 acre-inches
0.00 inches/acre

Total harvests for the crop
1 harvests

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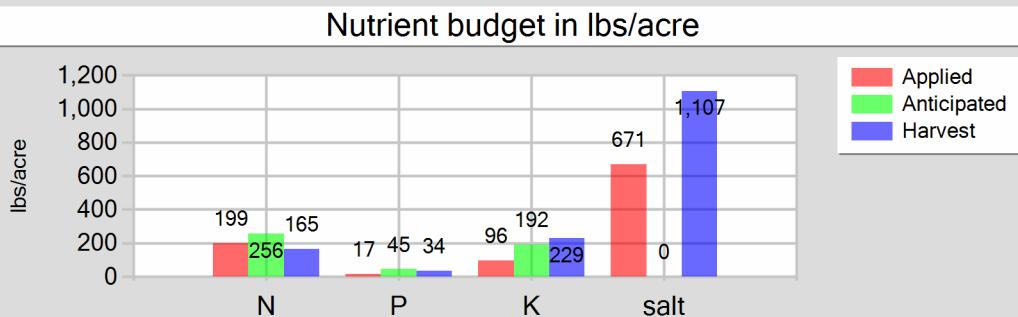
Reporting period 01/01/2023 to 12/31/2023.

A2 - 11/01/2022: Wheat, silage, boot stage

Field name: A2

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022



	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	191.98	16.84	96.24	607.89
Fresh water	0.00	0.00	0.00	63.24
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	198.98	16.84	96.24	671.13
Anticipated crop nutrient removal	256.00	44.80	192.00	0.00
Actual crop nutrient removal	164.76	34.06	229.20	1,107.32
Nutrient balance	34.22	-17.22	-132.96	-436.20
Applied to removed ratio	1.21	0.49	0.42	0.61

Fresh water applied

20,208,000.00 gallons
744.19 acre-inches
23.26 inches/acre

Process wastewater applied

1,390,000.00 gallons
51.19 acre-inches
1.60 inches/acre

Total harvests for the crop

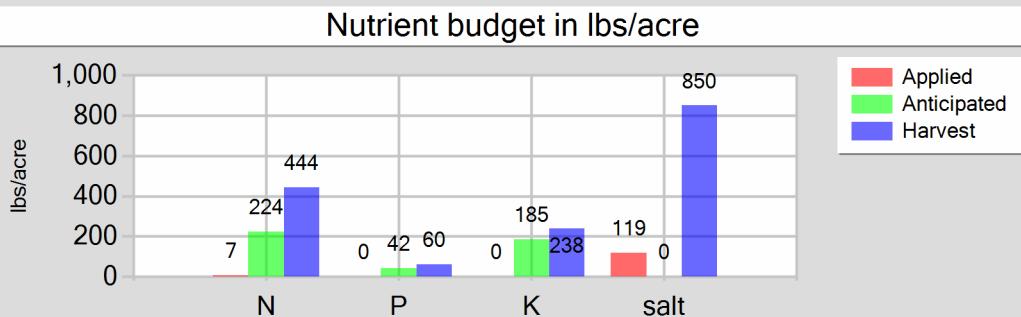
1 harvests

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Reporting period 01/01/2023 to 12/31/2023.

A2 - 06/30/2023: Corn, silage

Field name: A2 Crop: Corn, silage Plant date: 06/30/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	0.00	0.00	0.00	0.00
Fresh water	0.00	0.00	0.00	119.34
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	7.00	0.00	0.00	119.34
Anticipated crop nutrient removal	224.00	42.00	184.80	0.00
Actual crop nutrient removal	444.29	60.36	238.07	850.03
Nutrient balance	-437.29	-60.36	-238.07	-730.69
Applied to removed ratio	0.02	0.00	0.00	0.14

Fresh water applied

38,136,000.00 gallons
1,404.42 acre-inches
43.89 inches/acre

Process wastewater applied

0.00 gallons
0.00 acre-inches
0.00 inches/acre

Total harvests for the crop

1 harvests

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Reporting period 01/01/2023 to 12/31/2023.

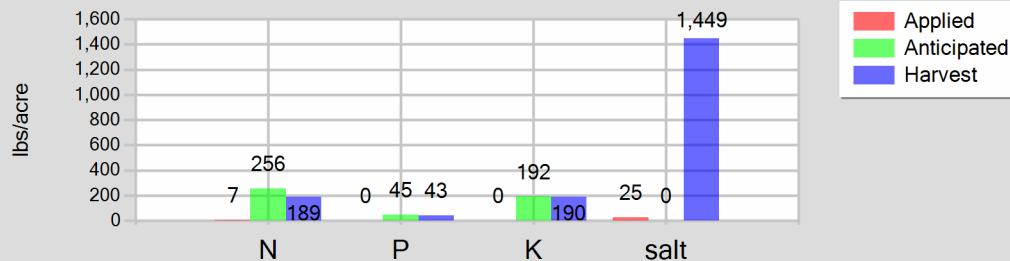
A5 - 12/01/2022: Wheat, silage, boot stage

Field name: A5

Crop: Wheat, silage, boot stage

Plant date: 12/01/2022

Nutrient budget in lbs/acre



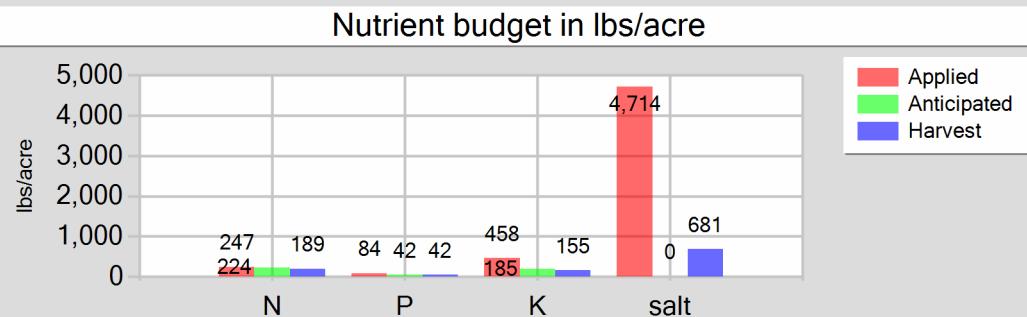
	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	13,792,000.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	507.91 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	9.23 inches/acre
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	0.00	0.00	0.00	0.00	
Fresh water	0.00	0.00	0.00	25.11	
Atmospheric deposition	7.00	0.00	0.00	0.00	
Total nutrients applied	7.00	0.00	0.00	25.11	Process wastewater applied
Anticipated crop nutrient removal	256.00	44.80	192.00	0.00	0.00 gallons
Actual crop nutrient removal	189.03	42.73	190.33	1,448.82	0.00 acre-inches
Nutrient balance	-182.03	-42.73	-190.33	-1,423.70	0.00 inches/acre
Applied to removed ratio	0.04	0.00	0.00	0.02	Total harvests for the crop
					1 harvests

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Reporting period 01/01/2023 to 12/31/2023.

A5 - 07/16/2023: Corn, silage

Field name: A5 Crop: Corn, silage Plant date: 07/16/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	240.00	83.64	458.18	4,585.16
Process wastewater	0.00	0.00	0.00	0.00
Fresh water	0.00	0.00	0.00	128.65
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	247.00	83.64	458.18	4,713.81
Anticipated crop nutrient removal	224.00	42.00	184.80	0.00
Actual crop nutrient removal	188.78	41.80	155.07	680.95
Nutrient balance	58.22	41.84	303.11	4,032.85
Applied to removed ratio	1.31	2.00	2.95	6.92

Fresh water applied
70,656,000.00 gallons
2,602.02 acre-inches
47.31 inches/acre

Process wastewater applied
0.00 gallons
0.00 acre-inches
0.00 inches/acre

Total harvests for the crop
1 harvests

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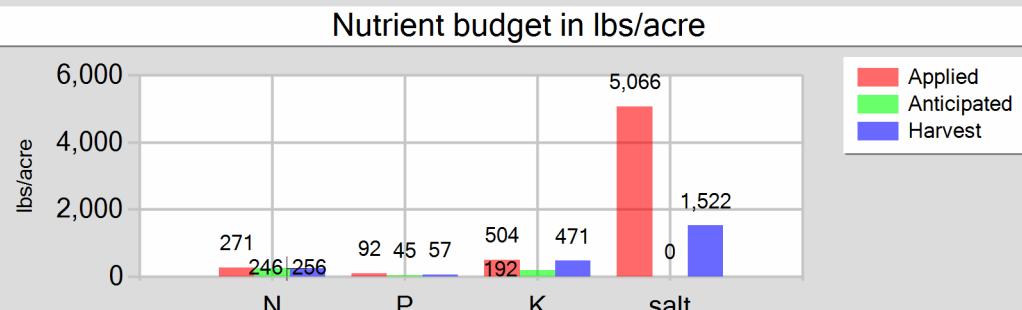
Reporting period 01/01/2023 to 12/31/2023.

A6 - 11/01/2022: Wheat, silage, boot stage

Field name: A6

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022



	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	264.00	92.00	504.00	5,043.68
Process wastewater	0.00	0.00	0.00	0.00
Fresh water	0.00	0.00	0.00	22.03
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	271.00	92.00	504.00	5,065.71
Anticipated crop nutrient removal	256.00	44.80	192.00	0.00
Actual crop nutrient removal	246.02	57.05	470.64	1,522.44
Nutrient balance	24.98	34.95	33.36	3,543.27
Applied to removed ratio	1.10	1.61	1.07	3.33

Fresh water applied
3,300,000.00 gallons
121.53 acre-inches
8.10 inches/acre

Process wastewater applied
0.00 gallons
0.00 acre-inches
0.00 inches/acre

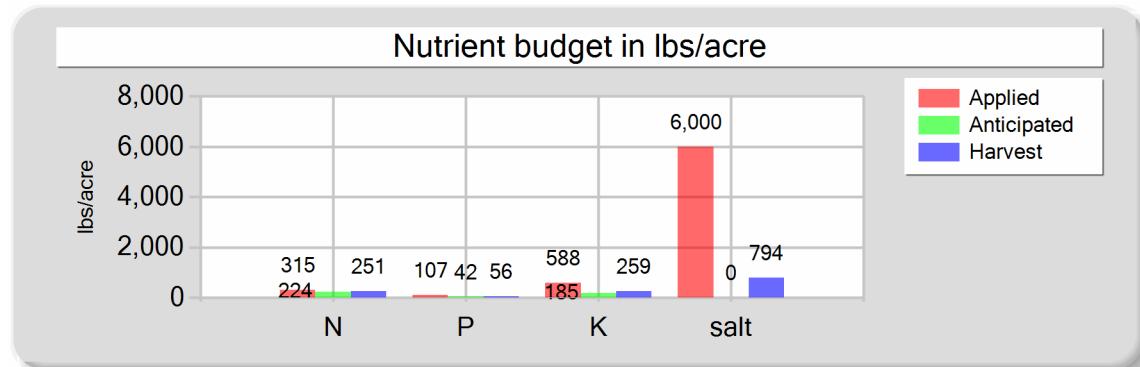
Total harvests for the crop
1 harvests

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Reporting period 01/01/2023 to 12/31/2023.

A6 - 07/01/2023: Corn, silage

Field name: A6 Crop: Corn, silage Plant date: 07/01/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	308.00	107.33	588.00	5,884.29
Process wastewater	0.00	0.00	0.00	0.00
Fresh water	0.00	0.00	0.00	115.90
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	315.00	107.33	588.00	6,000.19
Anticipated crop nutrient removal	224.00	42.00	184.80	0.00
Actual crop nutrient removal	250.73	56.34	259.18	794.45
Nutrient balance	64.27	50.99	328.82	5,205.74
Applied to removed ratio	1.26	1.90	2.27	7.55

Fresh water applied

17,360,000.00 gallons
639.31 acre-inches
42.62 inches/acre

Process wastewater applied

0.00 gallons
0.00 acre-inches
0.00 inches/acre

Total harvests for the crop

1 harvests

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Reporting period 01/01/2023 to 12/31/2023.

NUTRIENT ANALYSES**A. MANURE ANALYSES****Dry Manure**

Sample and source description: Dry Manure

Sample date: 06/09/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 42.0 %

	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	13,200.00	4,600.00	25,200.00	17,600.00	5,400.00	7,100.00	3,600.00	65.80		43.48
DL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	1.00		1.00

Dry Manure

Sample and source description: Dry Manure

Sample date: 10/27/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 25.1 %

	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	14,400.00	5,200.00	17,100.00							54.70
DL	100.00	100.00	100.00							1.00

B. PROCESS WASTEWATER ANALYSES**1st Qtr WW**

Sample and source description: 1st Qtr WW

Sample date: 02/03/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.69

	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 (µmhos/cm)	TDS (mg/L)
Value	529.63	90.10	0.00	0.00	46.46	265.49								2,620.00	1,677
DL	67.00	0.57	0.01	0.01	0.64	0.57								1.00	19

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Reporting period 01/01/2023 to 12/31/2023.

2nd Qtr WW

Sample and source description: 2nd Qtr WW

Sample date: 06/09/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.59

	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 (µmhos/cm)	TDS (mg/L)
Value	259.30	140.60	0.00	0.00	47.99	290.50	6.30	5.00	8.40	0.00	31.39	1.00	3.50	3,300.00	2,115
DL	67.00	0.57	0.01	0.01	0.64	0.01	0.02	0.02	0.01	0.01	0.10	0.02	0.01	1.00	19

3rd Qtr WW

Sample and source description: 3rd Qtr WW

Sample date: 09/13/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.44

	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 (µmhos/cm)	TDS (mg/L)
Value	199.50	149.10	0.00	0.00	55.75	256.11								3,488.00	2,232
DL	67.00	0.57	0.01	0.01	0.64	0.01								1.00	19

4th Qtr WW

Sample and source description: 4th Qtr WW

Sample date: 12/06/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.47

	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 (µmhos/cm)	TDS (mg/L)
Value	379.70	132.20	0.00	0.00	43.67	197.90								2,456.00	1,629
DL	67.00	0.57	0.01	0.01	0.64	0.01								1.00	19

C. FRESH WATER ANALYSES

Alyson Dom

Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

Alyson Dom**Alyson Dom**Sample description: Alyson DomSample date: 12/12/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	0.00										266.00	
DL	0.10										1.00	

BArn 1**Barn 1**Sample description: Barn 1Sample date: 12/12/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	0.20										420.00	
DL	0.10										1.00	

Barn 2**Barn 2**Sample description: Barn 2Sample date: 12/12/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	0.20										414.00	
DL	0.10										1.00	

Canal

Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

Canal**Canal**Sample description: CanalSample date: 08/17/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (μ mhos/cm)	TDS (mg/L)
Value	0.00										20.00	
DL	0.10										1.00	

Dom West**Dom West**Sample description: Dom WestSample date: 12/12/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (μ mhos/cm)	TDS (mg/L)
Value	0.20										414.00	
DL	0.10										1.00	

Hill-Dom**Hill-Dom**Sample description: Hill-DomSample date: 12/12/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (μ mhos/cm)	TDS (mg/L)
Value	0.20										424.00	
DL	0.10										1.00	

Polk-Dom

Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

Polk-Dom**Polk-dom**

Sample description: Polk-dom

Sample date: 12/12/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	0.20										430.00	
DL	0.10										1.00	

Red House**Red House**

Sample description: Red House

Sample date: 12/12/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	0.00										258.00	
DL	0.10										1.00	

Shop Dom**Shop Dom**

Sample description: Shop Dom

Sample date: 12/12/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	0.00										255.00	
DL	0.10										1.00	

D. SOIL ANALYSES

Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

No soil analyses entered.

E. PLANT TISSUE ANALYSES

1&2 - 12/01/2022: Wheat, silage, boot stage

1&2

Sample and source description: 1&2

Sample date: 06/15/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 42.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,100.00	4,300.00	27,700.00		7.55
DL	100.00	100.00	100.00		1.00

1&2 - 07/22/2023: Corn, silage

1&2

Sample and source description: 1&2

Sample date: 12/08/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 64.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,100.00	2,000.00	10,500.00		4.05
DL	100.00	100.00	100.00		1.00

36E - 11/01/2022: Wheat, silage, boot stage

Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

36E - 11/01/2022: Wheat, silage, boot stage

36E

Sample and source description: 36E

Sample date: 05/31/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 66.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	18,400.00	3,800.00	30,600.00		13.60
DL	100.00	100.00	100.00		1.00

36E - 06/30/2023: Corn, silage

36E

Sample and source description: 36E

Sample date: 10/23/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 62.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	19,100.00	4,100.00	14,400.00		6.57
DL	100.00	100.00	100.00		1.00

5 - 11/01/2022: Wheat, silage, boot stage

5

Sample and source description: 5

Sample date: 05/31/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 61.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	19,300.00	3,600.00	28,800.00		9.30
DL	100.00	100.00	100.00		1.00

Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

5 - 06/30/2023: Corn, silage

5

Sample and source description: 5

Sample date: 12/08/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 64.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,000.00	2,700.00	14,100.00		7.21
DL	100.00	100.00	100.00		1.00

6 - 12/01/2022: Wheat, silage, boot stage

6

Sample and source description: 6

Sample date: 06/15/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 69.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	20,300.00	1,100.00	13,600.00		12.21
DL	100.00	100.00	100.00		1.00

6 - 07/15/2023: Corn, silage

6

Sample and source description: 6

Sample date: 12/08/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 61.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,200.00	2,400.00	12,700.00		5.28
DL	100.00	100.00	100.00		1.00

Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

A1-N - 11/01/2022: Wheat, silage, boot stage

A-1N

Sample and source description: A-1N

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

Moisture: 67.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	18,100.00	3,300.00	20,100.00		11.22
DL	100.00	100.00	100.00		1.00

A1-N - 06/30/2023: Corn, silage

A1N

Sample and source description: A1N

Sample date: 10/23/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 56.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	18,900.00	4,100.00	16,700.00		4.75
DL	100.00	100.00	100.00		1.00

A2 - 11/01/2022: Wheat, silage, boot stage

A2

Sample and source description: A2

Sample date: 05/31/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 67.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,900.00	3,700.00	24,900.00		12.03
DL	100.00	100.00	100.00		1.00

Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

A2 - 06/30/2023: Corn, silage

A2

Sample and source description: A2

Sample date: 10/23/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 61.7 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	26,500.00	3,600.00	14,200.00		5.07
DL	100.00	100.00	100.00		1.00

A5 - 12/01/2022: Wheat, silage, boot stage

A5

Sample and source description: A5

Sample date: 06/16/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 47.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,600.00	3,300.00	14,700.00		11.19
DL	100.00	100.00	100.00		1.00

A5 - 07/16/2023: Corn, silage

A5

Sample and source description: A5

Sample date: 12/08/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 63.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,000.00	3,100.00	11,500.00		5.05
DL	100.00	100.00	100.00		1.00

Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

A6 - 11/01/2022: Wheat, silage, boot stage

A6

Sample and source description: A6

Sample date: 05/31/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 64.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,800.00	3,200.00	26,400.00		8.54
DL	100.00	100.00	100.00		1.00

A6 - 07/01/2023: Corn, silage

A6

Sample and source description: A6

Sample date: 10/23/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 59.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,800.00	4,000.00	18,400.00		5.64
DL	100.00	100.00	100.00		1.00

F. SUBSURFACE (TILE) DRAINAGE ANALYSES

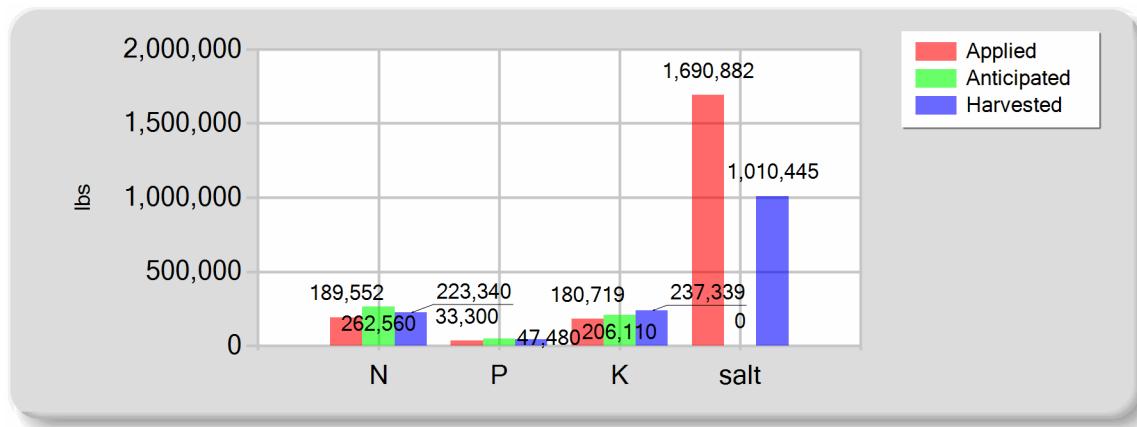
No subsurface (tile) drainage analyses entered.

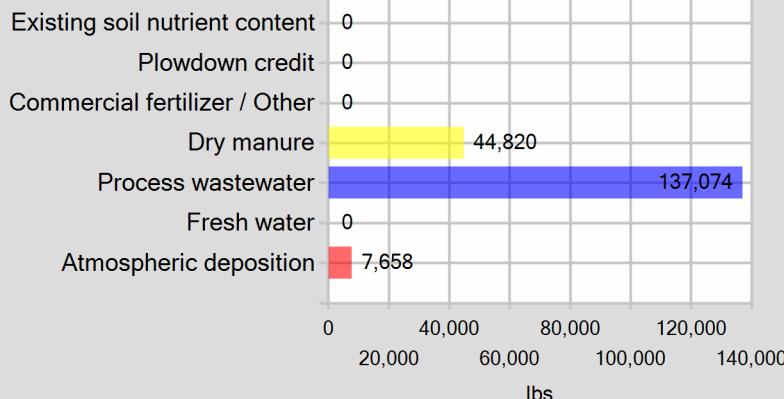
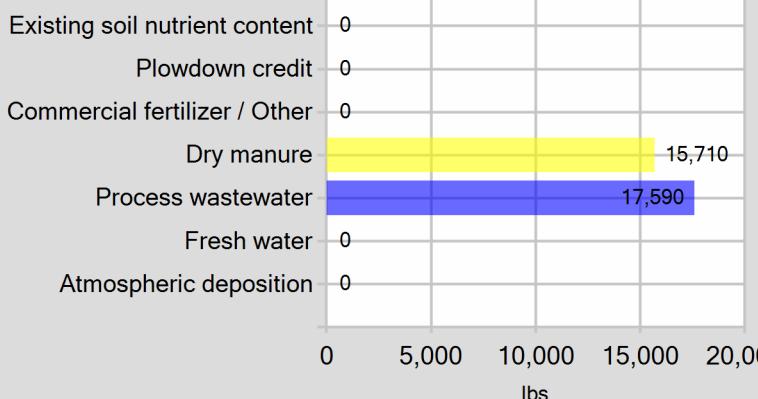
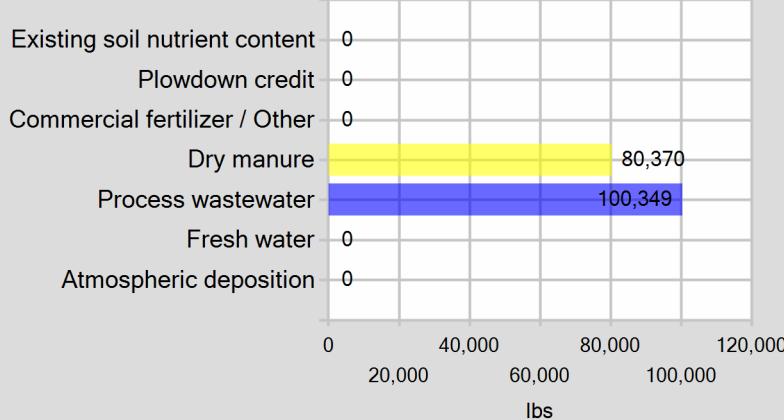
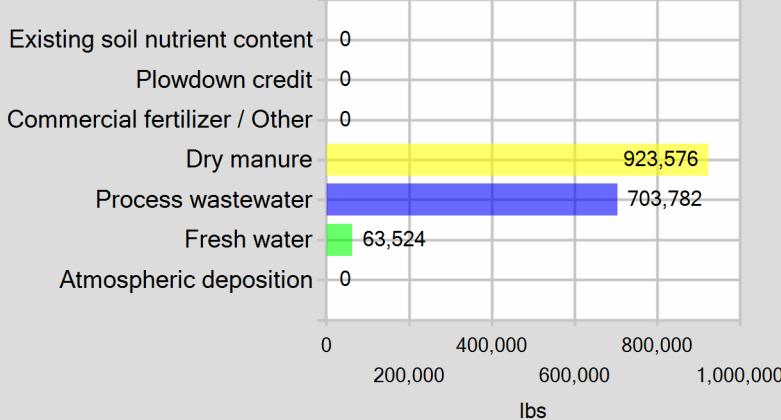
Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

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

	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	44,820.00	15,710.00	80,370.00	923,575.90
Process wastewater	137,074.41	17,589.69	100,349.21	703,781.82
Fresh water	0.00	0.00	0.00	63,524.41
Atmospheric deposition	7,658.00	0.00	0.00	0.00
Total nutrients applied	189,552.41	33,299.69	180,719.21	1,690,882.13
Anticipated crop nutrient removal	262,560.00	47,479.60	206,109.60	0.00
Actual crop nutrient removal	223,340.47	41,413.33	237,339.33	1,010,444.89
Nutrient balance	-33,788.06	-8,113.65	-56,620.12	680,437.24
Applied to removed ratio	0.85	0.80	0.76	1.67

B. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL

C. POUNDS OF NUTRIENT APPLIED BY MATERIAL TYPE**Pounds of nitrogen applied****Pounds of phosphorus applied****Pounds of potassium applied****Pounds of salt applied**

Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

EXCEPTION REPORTING

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

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

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

B. STORM WATER DISCHARGES

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

No stormwater discharges occurred during the reporting period.

C. LAND APPLICATION AREA TO SURFACE WATER DISCHARGES

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

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

NUTRIENT MANAGEMENT PLAN AND EXPORT AGREEMENT STATEMENTS

A. NUTRIENT MANAGEMENT PLAN STATEMENTS

Was the facility's NMP updated in the reporting period? No

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

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

B. EXPORT AGREEMENT STATEMENT

Are there any written agreements with third parties to receive manure or process wastewater that are new or were revised within the reporting period? No

Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

ADDITIONAL NOTES

A. NOTES

Wells were all negative for Ammonia which we tested onsite using a test strip .

We had an extremely wet year and had early flood release water and then Canal water thru the whole year so no wells were turned on .

Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

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

Patrick Maddox

PRINT OR TYPE NAME

SIGNATURE OF OPERATOR OF FACILITY

SAME AS OWNER

PRINT OR TYPE NAME

DATE

DATE

Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

ATTACHMENTS

A. REQUIRED ATTACHMENTS

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

Annual Dairy Facility Assessment

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

Manure/Process Wastewater Tracking Manifests

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

Corrective Actions Documents

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

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

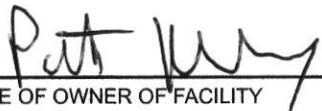
Dischargers that are required to monitor storm water more frequently than required in the General Order must submit monitoring results as directed in the General Order, Storm Water Reporting Section on page MRP-14.

Annual Report - General Order No. R5-2007-0035
Reporting period 01/01/2023 to 12/31/2023.

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

Patrick Maddox

PRINT OR TYPE NAME

6/30/24

DATE

SIGNATURE OF OPERATOR OF FACILITY

SAME AS OWNER

PRINT OR TYPE NAME

DATE



RuAnn Dairy
7866 W. Davis Ave
Riverdale, CA 93656

Account# 00-0025830
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/21/2023 08:36

Samples in this Report

Lab ID	Sample	Matrix	Sampled By	Crop	Date Sampled
23L0649-01	Alyson Dom	Ag Water	Medeiros		12/12/2023 7:55
23L0649-02	Dom West	Ag Water	Medeiros		12/12/2023 8:00
23L0649-03	Barn-1	Ag Water	Medeiros		12/12/2023 8:05
23L0649-04	Barn-2	Ag Water	Medeiros		12/12/2023 8:10
23L0649-05	Hill-Dom	Ag Water	Medeiros		12/12/2023 8:20
23L0649-06	Polk-Dom	Ag Water	Medeiros		12/12/2023 8:25
23L0649-07	Red House	Ag Water	Medeiros		12/12/2023 8:35
23L0649-08	Shop Dom	Ag Water	Medeiros		12/12/2023 8:40

Default Cooler Temperature on Receipt °C: 12.0
Containers Intact
COC/Labels Agree
Received On Ice

Notes and Definitions

Item	Definition
H	Hold Time Exceeded
MCL	Drinking Water Maximum Contaminant Level
ND	Analyte NOT DETECTED at or above the reporting limit.
NES	Not Enough Sample
*	Not Taken
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.

Laboratory Director/Technical Manager

ELAP Certification #1595
A2LA Certification #6440.02

The results in this report apply to the samples as received and were analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. Dellavalle Laboratory, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



RuAnn Dairy
7866 W. Davis Ave
Riverdale, CA 93656

Account# 00-0025830
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/21/2023 08:36

Sample Results

Sample: Alyson Dom
23L0649-01 (Water)

Sampled: 12/12/2023 7:55
Sampled By: Medeiros

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	0.27	mmhos/cm	0.01	1		12/13/23 15:23	SM 2510 B		BEL0495
Electrical Conductivity umhos	266	umhos/cm	10.0	1		12/13/23 15:23	SM 2510 B		BEL0495
Ammonia (as N)	ND	mg/L	0.00	1		12/12/23 07:55	Field		BEL0513
Nitrate Nitrogen as NO3N	ND	mg/L	0.1	1	10	12/14/23 01:32	EPA 300.0		BEL0569
Temperature	25.0	units	0.0	1		12/13/23 15:23	SM 4500-H+	H	BEL0495
pH	9.4	units	1.0	1		12/13/23 15:23	SM 4500-H+	H	BEL0495

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RuAnn Dairy
7866 W. Davis Ave
Riverdale, CA 93656

Account# 00-0025830
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/21/2023 08:36

Sample: Dom West
23L0649-02 (Water)

Sampled: 12/12/2023 8:00

Sampled By: Medeiros

Sample Results
(Continued)

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	0.41	mmhos/cm	0.01	1		12/13/23 15:25	SM 2510 B		BEL0495
Electrical Conductivity umhos	414	umhos/cm	10.0	1		12/13/23 15:25	SM 2510 B		BEL0495
Ammonia (as N)	ND	mg/L	0.00	1		12/12/23 08:00	Field		BEL0513
Nitrate Nitrogen as NO3N	0.2	mg/L	0.1	1	10	12/14/23 01:54	EPA 300.0		BEL0569
Temperature	25.0	units	0.0	1		12/13/23 15:25	SM 4500-H+	H	BEL0495
pH	8.3	units	1.0	1		12/13/23 15:25	SM 4500-H+	H	BEL0495

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RuAnn Dairy
7866 W. Davis Ave
Riverdale, CA 93656

Account# 00-0025830
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/21/2023 08:36

Sample: Barn-1
23L0649-03 (Water)

Sampled: 12/12/2023 8:05

Sampled By: Medeiros

Sample Results
(Continued)

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	0.42	mmhos/cm	0.01	1		12/13/23 15:26	SM 2510 B		BEL0495
Electrical Conductivity umhos	420	umhos/cm	10.0	1		12/13/23 15:26	SM 2510 B		BEL0495
Ammonia (as N)	ND	mg/L	0.00	1		12/12/23 08:05	Field		BEL0513
Nitrate Nitrogen as NO3N	0.2	mg/L	0.1	1	10	12/14/23 02:16	EPA 300.0		BEL0569
Temperature	25.0	units	0.0	1		12/13/23 15:26	SM 4500-H+	H	BEL0495
pH	8.3	units	1.0	1		12/13/23 15:26	SM 4500-H+	H	BEL0495

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RuAnn Dairy
7866 W. Davis Ave
Riverdale, CA 93656

Account# 00-0025830
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/21/2023 08:36

Sample: Barn-2
23L0649-04 (Water)

Sampled: 12/12/2023 8:10

Sampled By: Medeiros

Sample Results
(Continued)

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	0.41	mmhos/cm	0.01	1		12/13/23 15:28	SM 2510 B		BEL0495
Electrical Conductivity umhos	414	umhos/cm	10.0	1		12/13/23 15:28	SM 2510 B		BEL0495
Ammonia (as N)	ND	mg/L	0.00	1		12/12/23 08:14	Field		BEL0513
Nitrate Nitrogen as NO3N	0.2	mg/L	0.1	1	10	12/14/23 02:38	EPA 300.0		BEL0569
Temperature	25.0	units	0.0	1		12/13/23 15:28	SM 4500-H+	H	BEL0495
pH	8.2	units	1.0	1		12/13/23 15:28	SM 4500-H+	H	BEL0495

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RuAnn Dairy
7866 W. Davis Ave
Riverdale, CA 93656

Account# 00-0025830
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/21/2023 08:36

Sample: Hill-Dom
23L0649-05 (Water)

Sampled: 12/12/2023 8:20

Sampled By: Medeiros

Sample Results
(Continued)

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	0.42	mmhos/cm	0.01	1		12/13/23 15:29	SM 2510 B		BEL0495
Electrical Conductivity umhos	424	umhos/cm	10.0	1		12/13/23 15:29	SM 2510 B		BEL0495
Ammonia (as N)	ND	mg/L	0.00	1		12/12/23 08:20	Field		BEL0513
Nitrate Nitrogen as NO3N	0.2	mg/L	0.1	1	10	12/14/23 02:59	EPA 300.0		BEL0569
Temperature	25.0	units	0.0	1		12/13/23 15:29	SM 4500-H+	H	BEL0495
pH	8.3	units	1.0	1		12/13/23 15:29	SM 4500-H+	H	BEL0495

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RuAnn Dairy
7866 W. Davis Ave
Riverdale, CA 93656

Account# 00-0025830
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/21/2023 08:36

Sample: Polk-Dom
23L0649-06 (Water)

Sampled: 12/12/2023 8:25

Sampled By: Medeiros

Sample Results
(Continued)

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	0.43	mmhos/cm	0.01	1		12/13/23 15:30	SM 2510 B		BEL0495
Electrical Conductivity umhos	430	umhos/cm	10.0	1		12/13/23 15:30	SM 2510 B		BEL0495
Ammonia (as N)	ND	mg/L	0.00	1		12/12/23 08:25	Field		BEL0513
Nitrate Nitrogen as NO3N	0.2	mg/L	0.1	1	10	12/14/23 03:21	EPA 300.0		BEL0569
Temperature	25.0	units	0.0	1		12/13/23 15:30	SM 4500-H+	H	BEL0495
pH	8.3	units	1.0	1		12/13/23 15:30	SM 4500-H+	H	BEL0495

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RuAnn Dairy
7866 W. Davis Ave
Riverdale, CA 93656

Account# 00-0025830
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/21/2023 08:36

Sample: Red House
23L0649-07 (Water)

Sampled: 12/12/2023 8:35

Sampled By: Medeiros

Sample Results
(Continued)

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	0.26	mmhos/cm	0.01	1		12/13/23 15:31	SM 2510 B		BEL0495
Electrical Conductivity umhos	258	umhos/cm	10.0	1		12/13/23 15:31	SM 2510 B		BEL0495
Ammonia (as N)	ND	mg/L	0.00	1		12/12/23 08:35	Field		BEL0513
Nitrate Nitrogen as NO ₃ N	ND	mg/L	0.1	1	10	12/14/23 03:43	EPA 300.0		BEL0569
Temperature	25.0	units	0.0	1		12/13/23 15:31	SM 4500-H+	H	BEL0495
pH	9.4	units	1.0	1		12/13/23 15:31	SM 4500-H+	H	BEL0495

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RuAnn Dairy
7866 W. Davis Ave
Riverdale, CA 93656

Account# 00-0025830
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/21/2023 08:36

Sample: Shop Dom
23L0649-08 (Water)

Sampled: 12/12/2023 8:40

Sampled By: Medeiros

Sample Results
(Continued)

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	0.25	mmhos/cm	0.01	1		12/13/23 15:38	SM 2510 B		BEL0495
Electrical Conductivity umhos	255	umhos/cm	10.0	1		12/13/23 15:38	SM 2510 B		BEL0495
Ammonia (as N)	ND	mg/L	0.00	1		12/12/23 08:40	Field		BEL0513
Nitrate Nitrogen as NO ₃ N	ND	mg/L	0.1	1	10	12/14/23 04:05	EPA 300.0		BEL0569
Temperature	25.0	units	0.0	1		12/13/23 15:38	SM 4500-H+	H	BEL0495
pH	9.3	units	1.0	1		12/13/23 15:38	SM 4500-H+	H	BEL0495

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RuAnn Dairy
7866 W. Davis Ave
Riverdale, CA 93656

Account# 00-0025830
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/21/2023 08:36

Quality Control

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEL0495									
Blank (BEL0495-BLK1)									
Electrical Conductivity	ND	0.01	mmhos/cm						
Temperature	25.0	0.0	units						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
pH	5.7	1.0	units						
Blank (BEL0495-BLK2)									
Temperature	25.0	0.0	units						
Electrical Conductivity	ND	0.01	mmhos/cm						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
pH	7.7	1.0	units						
Blank (BEL0495-BLK3)									
Electrical Conductivity	ND	0.01	mmhos/cm						
Temperature	25.0	0.0	units						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
pH	7.9	1.0	units						
Duplicate (BEL0495-DUP1)									
		Source: 23L0649-07							
Electrical Conductivity	0.26	0.01	mmhos/cm		0.26			0.701	10
Electrical Conductivity umhos	256	10.0	umhos/cm		258			0.701	10
pH	9.4	1.0	units		9.4			0.106	10
Duplicate (BEL0495-DUP2)									
		Source: 23L0666-01							
Electrical Conductivity	14.3	0.01	mmhos/cm		14.1			1.48	10
Electrical Conductivity umhos	14300	10.0	umhos/cm		14100			1.48	10
pH	7.6	1.0	units		7.6			0.00	10
Reference (BEL0495-SRM1)									
Electrical Conductivity	445		umhos/cm		426.0	104	90-110		
Reference (BEL0495-SRM2)									
pH	7.5		units		7.520	100	67021-101.3%		
Reference (BEL0495-SRM3)									
Electrical Conductivity	1070		umhos/cm		1000	107	90-110		
Electrical Conductivity umhos	1070		umhos/cm		1000	107	90-110		
Reference (BEL0495-SRM4)									
Electrical Conductivity	1060		umhos/cm		1000	106	90-110		
Electrical Conductivity umhos	1060		umhos/cm		1000	106	90-110		
Reference (BEL0495-SRM5)									
Electrical Conductivity	1070		umhos/cm		1000	107	90-110		

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7866 W. Davis Ave
Riverdale, CA 93656

Account# 00-0025830
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/21/2023 08:36

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEL0495 (Continued)									
Reference (BEL0495-SRM5)									
Electrical Conductivity umhos	1070		umhos/cm	1000	107	Prepared & Analyzed: 12/13/2023	90-110		
Reference (BEL0495-SRM6)									
pH	4.0		units	4.000	100	Prepared & Analyzed: 12/13/2023	97.5-102.5		
Reference (BEL0495-SRM7)									
pH	4.0		units	4.000	101	Prepared & Analyzed: 12/13/2023	97.5-102.5		
Reference (BEL0495-SRM8)									
pH	4.0		units	4.000	100	Prepared & Analyzed: 12/13/2023	97.5-102.5		

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Account# 00-0025830
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Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/21/2023 08:36

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEL0569									
Blank (BEL0569-BLK1)									
Nitrate Nitrogen as NO3N	ND	0.1	mg/L		Prepared & Analyzed: 12/14/2023				
Blank (BEL0569-BLK2)									
Nitrate Nitrogen as NO3N	ND	0.1	mg/L		Prepared & Analyzed: 12/14/2023				
Blank (BEL0569-BLK3)									
Nitrate Nitrogen as NO3N	ND	0.1	mg/L		Prepared & Analyzed: 12/14/2023				
Blank (BEL0569-BLK4)									
Nitrate Nitrogen as NO3N	ND	0.1	mg/L		Prepared & Analyzed: 12/14/2023				
LCS (BEL0569-BS1)									
Nitrate Nitrogen as NO3N	5.0	0.1	mg/L	5.000	99.3	90-110			
LCS (BEL0569-BS2)									
Nitrate Nitrogen as NO3N	5.2	0.1	mg/L	5.000	103	90-110			
LCS (BEL0569-BS3)									
Nitrate Nitrogen as NO3N	4.9	0.1	mg/L	5.000	98.7	90-110			
Duplicate (BEL0569-DUP1)									
Nitrate Nitrogen as NO3N	0.06	0.1	mg/L	0.06			1.77	10	
Duplicate (BEL0569-DUP2)									
Nitrate Nitrogen as NO3N	0.06	0.1	mg/L	0.06			0.00	10	
Duplicate (BEL0569-DUP3)									
Nitrate Nitrogen as NO3N	0.06	0.1	mg/L	0.05			1.83	10	
Matrix Spike (BEL0569-MS1)									
Nitrate Nitrogen as NO3N	5.0	0.1	mg/L	5.000	0.06	98.6	90-110		
Matrix Spike (BEL0569-MS2)									
Nitrate Nitrogen as NO3N	4.8	0.1	mg/L	5.000	0.06	94.2	90-110		
Matrix Spike (BEL0569-MS3)									
Nitrate Nitrogen as NO3N	4.8	0.1	mg/L	5.000	0.05	94.1	90-110		
Reference (BEL0569-SRM1)									
Nitrate Nitrogen as NO3N	9.7		mg/L	10.00	97.4	90-110			
Reference (BEL0569-SRM2)									
Nitrate Nitrogen as NO3N	9.8		mg/L	10.00	98.4	90-110			

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7866 W. Davis Ave
Riverdale, CA 93656

Account# 00-0025830
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/21/2023 08:36

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
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Batch: BEL0569 (Continued)

Reference (BEL0569-SRM3)

Nitrate Nitrogen as NO ₃ N	9.9	mg/L	10.00	99.0	90-110
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Reference (BEL0569-SRM4)

Nitrate Nitrogen as NO ₃ N	10.0	mg/L	10.00	99.7	90-110
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12/13/23 07:00

23L0649

WATER WORK REQUEST

Bill To: 25830 Acct No. 8

Purchase Order No. _____ Results Needed By _____

Client **RuAnn Dairy**
 Address **7866 W. Davis Ave**
 City, State, Zip **Riverdale Ca 93656**
 Email: **ruannpat@aol.com**

Copy to: **mel_tinamedeiros@yahoo.com**Requested by/Cell: **Christina Medeiros/ 559-903-2490**

Facility: _____

Date sampled _____

Sampled by **Medeiros**

QA/QC Document Copy of Chain RWQCB

DESCRIPTION OF SAMPLES

1. **Alison Dam** - Sampled From: _____
2. **Dom-West** - Sampled From: _____
3. **Barn-1** - Sampled From: _____
4. **Barn 2** - Sampled From: _____
5. **Hill-Dam** - Sampled From: _____
6. **Pork-Dam** - Sampled From: _____
7. **Red House** - Sampled From: _____
8. **Spring-Dam** - Sampled From: _____
9. _____ Sampled From: _____
10. _____ Sampled From: _____

1910 W. McKinley Avenue, Suite 110 • Fresno, CA 93728

www.dellavallelab.com 559 233-6121 • 800 228-9896 • Fax 559 268-8174

No. of Samples 8No. Bottles 8

Water Type:

Ag Water
 Supply Water

Drinking
 Ground Water
 Other

Wastewater
 Mon. Well

Analysis and Bottles Required: (Please Indicate Analysis)

- EC, NO₃-N
 (I) 1L plastic, unpreserved (white)
 DWW1: (EC, pH, NO₃-N, NH₄-N Field Test)
 (I) 1L plastic, unpreserved (white)
 DWW2: (DWW1 Plus SO₄, CO₃, HCO₃, Cl, Ca, Mg, Na, TDS)
 (I) 1L plastic, unpreserved (white)
- DCW1: (EC, NO₃-N, TDS)
 (I) 1L plastic, unpreserved (white)
- DPW1: (EC, pH, NO₃-N, NH₄-N, TKN, TDS, TP, TK)
 (I) 1L plastic, unpreserved (white)
 DPW2: (DPW1 Plus Ca, Mg, Na, HCO₃, CO₃, SO₄, Cl)
 (I) 1L plastic, unpreserved (white)
- Other

Date Sampled	Time Sampled	Field NH ₄ -N (mg/L)	Received Temp °C
12/13/23	7:35 AM	0	12.0 / -1.9
	8 AM	0	10.6 / -2.0
	8:05 AM	0	13.6 / -1.1
	8:10 AM	0	11.5 / -2.1
	8:20 AM	0	13.9 / -1.9
	8:25 AM	0	14.5 / -1.1
	8:35 AM	0	13.1 / 5.3
	8:40 AM	0	11.1 / -1.8

IR Thermometer SN: 200560723

Correction Factor: 0°C

Calibration Due: 03/06/2024

Location: Laboratory

CHAIN OF CUSTODY

Carrier	Signature	Company	Received (Date/Time)	Relinquished (Date/Time)
First	<i>[Signature]</i>			12/13/23 11:32 AM
Second	<i>[Signature]</i>	DLI	12/13/23 11:32 AM	
Third				
Fourth	<i>[Signature]</i>	OCI	12/13 07:00	

I guarantee that as the client, or on behalf of the client named, I have the authority to contract the above requested services. Should it be found that I do not have such authority, I agree to be personally liable for all costs and, if there should be actions against me for this breach, I agree to pay my attorney's fees. It is understood that payment is expected to be cash with samples unless terms have been previously arranged. Terms are net 30 days; overdue accounts will be charged a dated damage fee of 2% per month (annual). If payment is not made when due and a legitimate dispute exists concerning the product or services of Dellavalle Laboratory, Inc., it will be submitted to mediation under the Rules and Procedures of Creative Alternative Dispute Resolution. The parties will equally bear the costs of mediation/arbitration. If, however, the mediator declares that no legitimate dispute exists, the dispute will be submitted to binding arbitration through Cal Under its Rules and Procedures. The parties will equally bear the costs of mediation/arbitration. If, however, the mediator declares that no legitimate dispute exists, the dispute will be submitted to binding arbitration through Cal Under its Rules and Procedures. The parties will equally bear the costs of mediation/arbitration.

IR Thermometer SN: 221511276
 Correction Factor: 0°C
 Calibration Due: 03/06/2024
 Location: Hanford

Invoicing Information:**Medeiros Pricing 2023**

Sampling Hrs			Shipping		
			\$	In	
			\$	Out	
Amt Paid	Rec By	Check No.		Date	

Signature _____

Sample received in cooler with ice?

[] Yes [] No

ott:update 2020



12/13/23 07:00

23L0649

Shipping Information: Shipped In <input type="checkbox"/> Picked-Up <input type="checkbox"/> Walk In <input checked="" type="checkbox"/> DLI Sampler <input type="checkbox"/> Other <input type="checkbox"/>										
<input type="checkbox"/> Samples refrigerated before pick up					<input type="checkbox"/> Picked up samples placed in Ice chest					
Container: Ice Chest <input checked="" type="checkbox"/> Box <input type="checkbox"/> None <input type="checkbox"/>					Refrigerant: Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/>					
Samples Preserved with HNO ₃ or H ₂ SO ₄ were: <input type="checkbox"/> Received Preserved <input type="checkbox"/> Preserved Upon Receipt at Laboratory										
Type of Container(s) Received	Sample Number									
	1	2	3	4	5	6	7	8	9	10
Sample Containers for Internal (DLI) Use (Containers that go into the Lab)										
Plastics	100 mL sterile plastic Na ₂ S ₂ O ₃ (Green)									
	250 mL unpreserved (White) Plastic									
	250 mL HNO ₃ (Red) Plastic									
	* pH Value									
	250 mL H ₂ SO ₄ (Yellow) Plastic									
	* pH Value									
	500 mL unpreserved (White) Plastic									
	1 L unpreserved (White) Plastic									
Special	1 L unpreserved (BOD) (Purple) Plastic									
	500mL unpreserved (White) Glass									
	PO4-P Kit									
Other:										
Sample Containers for Subcontracted ("Send Out") Analyses (Containers that go in the Subcontract ("Send Out") Refrigerator)										
Plastics	100 mL sterile plastic Na ₂ S ₂ O ₃ (Green)									
	250 mL unpreserved (White) Plastic									
	250 mL HNO ₃ (Red) Plastic									
	250 mL H ₂ SO ₄ (Yellow) Plastic									
	500 mL HNO ₃ (Red)									
	1 L unpreserved (White) Plastic									
	1 L unpreserved (BOD) (Purple) Plastic									
	1 L HNO ₃ (Red)									
VOA Vials	40 mL VOA, Na ₂ S ₂ O ₃ + MCAA (EPA531)									
	40 mL VOA, Na ₂ S ₂ O ₃ (EPA547)									
	40mL AG VOA unpreserved (White) (Set of 3)									
	40 mL AG VOA, Na ₂ S ₂ O ₃ (Green) (Set of 3)									
	40mL VOA, H ₃ PO ₄ (Set of 3)									
	40 mL VOA, HCl (Blue) (Set of 3)									
Glass	40 mL VOA, Na ₂ S ₂ O ₃ (Green) (Set of 3)									
	250 mL AG unpreserved (White)									
	250 mL AG H ₂ SO ₄ (Yellow)									
	250 mL AG Na ₂ S ₂ O ₃ (Green)									
	250 mL AG Na ₂ S ₂ O ₃ + MCAA									
	500 mL glass unpreserved (White)									
	500 mL AG HCl (Blue)									
	1 L AG unpreserved (White)									
	1 L AG H ₂ SO ₄ (Yellow)									
	1 L AG Na ₂ S ₂ O ₃ (Green)									
Special	1 L AG HCl (Blue)									
	Cr ⁶⁺ - 50mL Plastic w/Borate/HCO ₃ /CO ₃									
	Cyanide - 500 mL NaOH									
	Asbestos - 1L P wrapped in foil (Set of 2)									
	Sulfide - 1 L AG or P NaOH + ZnAc									
	Chlorite/Bromate - 250 mL AG with EDA									
	HAA5 - 250mL AG Ammonium Chlorite									
DO KIT										
Other:										
Other:										



RuAnn Dairy
7866 W. Davis Ave
Riverdale, CA 93656

Account# 00-0025830
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 08/17/2023 8:32
Reported: 08/23/2023 15:01

Samples in this Report

Lab ID	Sample	Matrix	Sampled By	Crop	Date Sampled
23H1590-01	Canal	Ag Water			08/16/2023 15:30

Default Cooler Temperature on Receipt °C: 0.9
Containers Intact
COC/Labels Agree
Received On Ice

Notes and Definitions

Item	Definition
MCL	Drinking Water Maximum Contaminant Level
ND	Analyte NOT DETECTED at or above the reporting limit.
NES	Not Enough Sample
*	Not Taken

Laboratory Director/Technical Manager

ELAP Certification #1595
A2LA Certification #6440.02

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RuAnn Dairy
7866 W. Davis Ave
Riverdale, CA 93656

Account# 00-0025830
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 08/17/2023 8:32
Reported: 08/23/2023 15:01

Sample Results

**Sample: Canal
23H1590-01 (Water)**

Sampled: 8/16/2023 15:30

Sampled By:

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	0.02	mmhos/cm	0.01	1		08/18/23 17:28	SM 2510 B		BEH0918
Nitrate Nitrogen as NO ₃ N	ND	mg/L	0.1	1	10	08/18/23 02:12	EPA 300.0		BEH0886

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Riverdale, CA 93656

Account# 00-0025830
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 08/17/2023 8:32
Reported: 08/23/2023 15:01

Quality Control

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEH0886									
Blank (BEH0886-BLK1)									
Nitrate Nitrogen as NO3N	ND	0.1	mg/L		Prepared & Analyzed: 8/17/2023				
Blank (BEH0886-BLK2)									
Nitrate Nitrogen as NO3N	ND	0.1	mg/L		Prepared & Analyzed: 8/17/2023				
Blank (BEH0886-BLK3)									
Nitrate Nitrogen as NO3N	ND	0.1	mg/L		Prepared: 8/17/2023 Analyzed: 8/18/2023				
LCS (BEH0886-BS1)									
Nitrate Nitrogen as NO3N	4.9	0.1	mg/L	5.000	97.8	90-110			
LCS (BEH0886-BS2)									
Nitrate Nitrogen as NO3N	4.9	0.1	mg/L	5.000	98.4	90-110			
Duplicate (BEH0886-DUP1)									
Nitrate Nitrogen as NO3N	0.2	0.1	mg/L	0.2			0.475	10	
Duplicate (BEH0886-DUP2)									
Nitrate Nitrogen as NO3N	5.8	0.1	mg/L	5.8			0.172	10	
Matrix Spike (BEH0886-MS1)									
Nitrate Nitrogen as NO3N	5.2	0.1	mg/L	5.000	0.2	99.6	90-110		
Matrix Spike (BEH0886-MS2)									
Nitrate Nitrogen as NO3N	10.8	0.1	mg/L	5.000	5.8	98.9	90-110		
Reference (BEH0886-SRM1)									
Nitrate Nitrogen as NO3N	9.9		mg/L	10.00		98.8	90-110		
Reference (BEH0886-SRM2)									
Nitrate Nitrogen as NO3N	10.0		mg/L	10.00		99.6	90-110		
Reference (BEH0886-SRM3)									
Nitrate Nitrogen as NO3N	10.0		mg/L	10.00		99.6	90-110		

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RuAnn Dairy
7866 W. Davis Ave
Riverdale, CA 93656

Account# 00-0025830
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 08/17/2023 8:32
Reported: 08/23/2023 15:01

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEH0918									
Blank (BEH0918-BLK1)									
Electrical Conductivity	ND		0.01	mmhos/cm	Prepared: 8/17/2023 Analyzed: 8/18/2023				
Blank (BEH0918-BLK2)									
Electrical Conductivity	ND		0.01	mmhos/cm	Prepared: 8/17/2023 Analyzed: 8/18/2023				
Blank (BEH0918-BLK3)									
Electrical Conductivity	ND		0.01	mmhos/cm	Prepared: 8/17/2023 Analyzed: 8/18/2023				
Duplicate (BEH0918-DUP1)									
Electrical Conductivity	0.02		0.01	mmhos/cm	Source: 23H1497-03	Prepared: 8/17/2023 Analyzed: 8/18/2023	0.02	9.30	10
Duplicate (BEH0918-DUP2)									
Electrical Conductivity	0.02		0.01	mmhos/cm	Source: 23H1590-01	Prepared: 8/17/2023 Analyzed: 8/18/2023	0.02	0.00	10
Reference (BEH0918-SRM1)									
Electrical Conductivity	511			umhos/cm	538.0	Prepared: 8/17/2023 Analyzed: 8/18/2023	94.9	90-110	
Reference (BEH0918-SRM3)									
Electrical Conductivity	956			umhos/cm	1000	Prepared: 8/17/2023 Analyzed: 8/18/2023	95.6	90-110	
Reference (BEH0918-SRM4)									
Electrical Conductivity	956			umhos/cm	1000	Prepared: 8/17/2023 Analyzed: 8/18/2023	95.6	90-110	
Reference (BEH0918-SRM5)									
Electrical Conductivity	971			umhos/cm	1000	Prepared: 8/17/2023 Analyzed: 8/18/2023	97.1	90-110	

The results in this report apply to the samples as received and were analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. Dellavalle Laboratory, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



08/17/23 08:32

23H1590

Shipping Information: Shipped In <input type="checkbox"/> Picked-Up <input type="checkbox"/> Walk In <input type="checkbox"/> DLI Sampler <input checked="" type="checkbox"/> Other <input type="checkbox"/> _____									
<input type="checkbox"/> Samples refrigerated before pick up					<input type="checkbox"/> Picked up samples placed in ice chest				
Container: Ice Chest <input checked="" type="checkbox"/> Box <input type="checkbox"/> None <input type="checkbox"/>					Refrigerant: Wet Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/>				
Samples Preserved with HNO ₃ or H ₂ SO ₄ were: <input type="checkbox"/> Received Preserved <input type="checkbox"/> Preserved Upon Receipt at Laboratory									
Type of Container(s) Received	Sample Number								
	1	2	3	4	5	6	7	8	9
Sample Containers for Internal (DLI) Use (Containers that go into the Lab)									
Plastics	100 mL sterile plastic Na ₂ S ₂ O ₃ (Green)								
	250 mL unpreserved (White) Plastic								
	250 mL HNO ₃ (Red) Plastic								
	* pH Value								
	250 mL H ₂ SO ₄ (Yellow) Plastic								
	* pH Value								
	500 mL unpreserved (White) Plastic								
1 L unpreserved (White) Plastic	I								
1 L unpreserved (BOD) (Purple) Plastic									
Special	500mL unpreserved (White) Glass								
	PO4-P Kit								
	Other:								
Sample Containers for Subcontracted ("Send Out") Analyses (Containers that go in the Subcontract ("Send Out") Refrigerator)									
Plastics	100 mL sterile plastic Na ₂ S ₂ O ₃ (Green)								
	250 mL unpreserved (White) Plastic								
	250 mL HNO ₃ (Red) Plastic								
	250 mL H ₂ SO ₄ (Yellow) Plastic								
	500 mL HNO ₃ (Red)								
	1 L unpreserved (White) Plastic								
	1 L unpreserved (BOD) (Purple) Plastic								
VOA Vials	40 mL VOA, Na ₂ S ₂ O ₃ + MCAA (EPA531)								
	40 mL VOA, Na ₂ S ₂ O ₃ (EPA547)								
	40mL AG VOA unpreserved (White) (Set of 3)								
	40 mL AG VOA, Na ₂ S ₂ O ₃ (Green) (Set of 3)								
	40mL VOA, H ₃ PO ₄ (Set of 3)								
	40 mL VOA, HCl (Blue) (Set of 3)								
	40 mL VOA, Na ₂ S ₂ O ₃ (Green) (Set of 3)								
Glass	250 mL AG unpreserved (White)								
	250 mL AG H ₂ SO ₄ (Yellow)								
	250 mL AG Na ₂ S ₂ O ₃ (Green)								
	250 mL AG Na ₂ S ₂ O ₃ + MCAA								
	500 mL glass unpreserved (White)								
	500 mL AG HCl (Blue)								
	1 L AG unpreserved (White)								
Special	1 L AG H ₂ SO ₄ (Yellow)								
	1 L AG Na ₂ S ₂ O ₃ (Green)								
	1 L AG HCl (Blue)								
	Cr ⁶⁺ - 50mL Plastic w/Borate/HCO ₃ /CO ₃								
	Cyanide - 500 mL NaOH								
	Asbestos - 1L P wrapped in foil (Set of 2)								
	Sulfide - 1 L AG or P NaOH + ZnAc								
Chlorite/Bromate - 250 mL AG with EDA									
HAA5 - 250mL AG Ammonium Chlorite									
DO KIT									
Other:									