

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:** Silva & Son Dairy

Physical address of dairy:

8331 Excelsior AVE

Number and Street

Hanford

Kings

93230

City

County

Zip Code

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

Date facility was originally placed in operation: 11/20/1969Regional Water Quality Control Board Basin Plan designation: Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

X014-X010-X052-XXXX

B. OPERATORS

Silva, Carlos

Operator name: Silva, CarlosTelephone no.: (559) 583-8545 (559) 731-2016

Landline Cellular

6580 Flint AVE

Hanford

CA

93230

Mailing Address Number and Street

City

State

Zip Code

This operator is responsible for paying permit fees.**C. OWNERS**

Carlyn & Janet Jensen Living Trust

Legal owner name: Carlyn & Janet Jensen Living TrustTelephone no.: (530) 756-5325

Landline Cellular

8331 Excelsior AVE

Hanford

CA

93230

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	500	45	50	48	0	0
Number under roof	0	0	0	0	0	0
Maximum number	520	50	55	50	0	0
Average number	510	47	53	49	0	0
Avg live weight (lbs)	1,200	1,250	750	500		

Predominant milk cow breed: Holstein

Average milk production: 68 pounds per cow per day

B. MANURE GENERATED

Total manure excreted by the herd: 14,553.03 tons per reporting period

Total nitrogen from manure: 187,736.00 lbs per reporting period

After ammonia losses (30% loss applied): 131,415.20 lbs per reporting period

Total phosphorus from manure: 31,439.26 lbs per reporting period

Total potassium from manure: 96,999.57 lbs per reporting period

Total salt from manure: 250,941.15 lbs per reporting period

C. PROCESS WASTEWATER GENERATED

Process wastewater generated: 3,756,000 gallons

Total nitrogen generated: 5,266.50 lbs

Total phosphorus generated: 1,882.31 lbs

Total potassium generated: 13,435.38 lbs

Total salt generated: 65,093.00 lbs

$$\begin{aligned}
 & 3,756,000 \text{ gallons applied} \\
 & + 0 \text{ gallons exported} \\
 & - 0 \text{ gallons imported} \\
 & = 3,756,000 \text{ gallons generated}
 \end{aligned}$$

D. FRESH WATER SOURCES

Source Description	Type
Irrigation #3	Ground water

E. SUBSURFACE (TILE) DRAINAGE SOURCES

No subsurface (tile) drainage sources entered.

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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
Field 1	80	80	2	both	0014-0010-0028-0000
Field 2	30	30	0	none	0014-0010-0052-0000
Field 3	63	63	2	both	0014-0010-0052-0000
Field 4	16	16	0	none	0014-0010-0052-0000
Totals for areas that were used for application	143	143	4		
Totals for areas that were not used for application	46	46	0		
Land application area totals	189	189	4		

B. CROPS AND HARVESTS

Field 1

Field name: Field 1

12/05/2022: Wheat, silage, boot stage

Crop: Wheat, silage, boot stage Acres planted: 80 Plant date: 12/05/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/23/2023	1,800.00 ton	As-is		58.4	6,500.00	2,800.00	11,600.00		10.90

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	24.00	297.60	144.00	489.60	0.00
Total actual harvest content	22.50	292.50	126.00	522.00	2,040.48

06/25/2023: Corn, silage

Crop: Corn, silage Acres planted: 80 Plant date: 06/25/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/16/2023	1,780.00 ton	As-is		63.2	4,700.00	2,300.00	7,000.00		5.60

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	20.00	192.00	84.00	284.00	0.00
Total actual harvest content	22.25	209.15	102.35	311.50	917.06

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Field 3

Field name: Field 3

12/05/2022: Wheat, silage, boot stage

Crop: Wheat, silage, boot stage Acres planted: 63 Plant date: 12/05/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/23/2023	1,442.30 ton	As-is		65.4	5,900.00	2,400.00	8,400.00		7.70

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	24.00	297.60	144.00	489.60	0.00
Total actual harvest content	22.89	270.15	109.89	384.61	1,219.87

06/25/2023: Corn, silage

Crop: Corn, silage Acres planted: 63 Plant date: 06/25/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/16/2023	1,656.00 ton	As-is		67.5	4,500.00	2,400.00	6,500.00		7.70

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	24.00	230.40	100.80	340.80	0.00
Total actual harvest content	26.29	236.57	126.17	341.71	1,315.60

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NUTRIENT BUDGET

A. LAND APPLICATIONS

Field 1 - 12/05/2022: Wheat, silage, boot stage

Field name: Field 1

Crop: Wheat, silage, boot stage

Plant date: 12/05/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
11/05/2022	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
Manure	Corral solids	218.00	102.00	388.00	0.00	800.00 ton
Application event totals		218.00	102.00	388.00	0.00	
11/08/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	4.41	1.27	8.64	45.06	360,000.00 gal
Irrigation #3	Ground water	0.91	0.00	0.00	130.54	10,920,000.00 gal
Application event totals		5.32	1.27	8.64	175.60	
12/14/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	3.67	1.06	7.20	37.55	300,000.00 gal
Irrigation #3	Ground water	0.75	0.00	0.00	107.59	9,000,000.00 gal
Application event totals		4.42	1.06	7.20	145.14	
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
Lagoon	Process wastewater	11.81	5.47	43.44	192.77	600,000.00 gal
Irrigation #3	Ground water	0.74	0.00	0.00	106.15	8,880,000.00 gal
Application event totals		12.55	5.47	43.44	298.92	

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Field 1 - 12/05/2022: Wheat, silage, boot stage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following
04/28/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)
Lagoon	Process wastewater	11.81	5.47	43.44	192.77
Irrigation #3	Ground water	0.75	0.00	0.00	107.59
Application event totals		12.56	5.47	43.44	300.36

Field 1 - 06/25/2023: Corn, silage

Field name: Field 1

Crop: Corn, silage

Plant date: 06/25/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following
05/25/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)
Irrigation #3	Ground water	0.89	0.00	0.00	127.67
Application event totals		0.89	0.00	0.00	127.67
05/25/2023	Plow/disc	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)
Manure	Corral solids	160.00	64.00	214.00	0.00
Application event totals		160.00	64.00	214.00	0.00
07/22/2023	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)
Irrigation #3	Ground water	0.75	0.00	0.00	107.59
Application event totals		0.75	0.00	0.00	107.59

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Field 1 - 06/25/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
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
Lagoon	Process wastewater	3.52	0.85	4.32	27.23	180,000.00 gal
Irrigation #3	Ground water	0.70	0.00	0.00	100.42	8,400,000.00 gal
Application event totals		4.22	0.85	4.32	127.64	
08/16/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Irrigation #3	Ground water	0.76	0.00	0.00	109.02	9,120,000.00 gal
Application event totals		0.76	0.00	0.00	109.02	
08/16/2023	Sidedress	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
Sidedress	Solid commercial fertilizer	50.00	0.00	0.00	0.00	
Application event totals		50.00	0.00	0.00	0.00	
08/28/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	3.52	0.85	4.32	27.23	180,000.00 gal
Irrigation #3	Ground water	0.75	0.00	0.00	107.59	9,000,000.00 gal
Application event totals		4.27	0.85	4.32	134.81	
09/10/2023	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
Irrigation #3	Ground water	0.74	0.00	0.00	105.44	8,820,000.00 gal
Application event totals		0.74	0.00	0.00	105.44	

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Field 1 - 06/25/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
09/22/2023	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
Lagoon	Process wastewater	3.52	0.85	4.32	27.23	180,000.00 gal
Irrigation #3	Ground water	0.75	0.00	0.00	107.59	9,000,000.00 gal
Application event totals		4.27	0.85	4.32	134.81	
10/04/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Irrigation #3	Ground water	0.69	0.00	0.00	98.98	8,280,000.00 gal
Application event totals		0.69	0.00	0.00	98.98	

Field 3 - 12/05/2022: Wheat, silage, boot stage

Field name: Field 3

Crop: Wheat, silage, boot stage Plant date: 12/05/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
11/05/2022	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
Manure	Corral solids	218.00	102.00	388.00	0.00	630.00 ton
Application event totals		218.00	102.00	388.00	0.00	
11/12/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	3.73	1.07	7.31	38.15	240,000.00 gal
Irrigation #3	Ground water	1.03	0.00	0.00	147.55	9,720,000.00 gal
Application event totals		4.76	1.07	7.31	185.70	

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Field 3 - 12/05/2022: Wheat, silage, boot stage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
12/18/2022	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	2.61	0.75	5.12	26.70	168,000.00 gal
Irrigation #3	Ground water	0.94	0.00	0.00	134.80	8,880,000.00 gal
Application event totals		3.55	0.75	5.12	161.50	
03/05/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	6.00	2.78	22.06	97.91	240,000.00 gal
Irrigation #3	Ground water	0.89	0.00	0.00	127.51	8,400,000.00 gal
Application event totals		6.89	2.78	22.06	225.43	
05/02/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	4.20	1.94	15.44	68.54	168,000.00 gal
Irrigation #3	Ground water	0.92	0.00	0.00	131.15	8,640,000.00 gal
Application event totals		5.11	1.94	15.44	199.70	

Field 3 - 06/25/2023: Corn, silage

Field name: Field 3

Crop: Corn, silage

Plant date: 06/25/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
05/25/2023	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
Manure	Corral solids	160.00	64.00	214.00	0.00	630.00 ton
Application event totals		160.00	64.00	214.00	0.00	

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Field 3 - 06/25/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
05/29/2023	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
Irrigation #3	Ground water	0.88	0.00	0.00	125.69	8,280,000.00 gal
Application event totals		0.88	0.00	0.00	125.69	
07/29/2023	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
Irrigation #3	Ground water	0.79	0.00	0.00	112.94	7,440,000.00 gal
Application event totals		0.79	0.00	0.00	112.94	
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
Lagoon	Process wastewater	4.47	1.08	5.48	34.57	180,000.00 gal
Irrigation #3	Ground water	0.74	0.00	0.00	105.65	6,960,000.00 gal
Application event totals		5.20	1.08	5.48	140.22	
08/20/2023	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
Irrigation #3	Ground water	0.76	0.00	0.00	109.30	7,200,000.00 gal
Application event totals		0.76	0.00	0.00	109.30	
08/20/2023	Sidedress	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Sidedress	Solid commercial fertilizer	50.00	0.00	0.00	0.00	
Application event totals		50.00	0.00	0.00	0.00	
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
Lagoon	Process wastewater	4.47	1.08	5.48	34.57	180,000.00 gal
Irrigation #3	Ground water	0.79	0.00	0.00	112.94	7,440,000.00 gal
Application event totals		5.25	1.08	5.48	147.51	

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Field 3 - 06/25/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
09/14/2023	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
Irrigation #3	Ground water	0.76	0.00	0.00	109.30	7,200,000.00 gal
Application event totals		0.76	0.00	0.00	109.30	
09/28/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	4.47	1.08	5.48	34.57	180,000.00 gal
Irrigation #3	Ground water	0.78	0.00	0.00	111.12	7,320,000.00 gal
Application event totals		5.24	1.08	5.48	145.69	
10/08/2023	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
Irrigation #3	Ground water	0.57	0.00	0.00	81.97	5,400,000.00 gal
Application event totals		0.57	0.00	0.00	81.97	

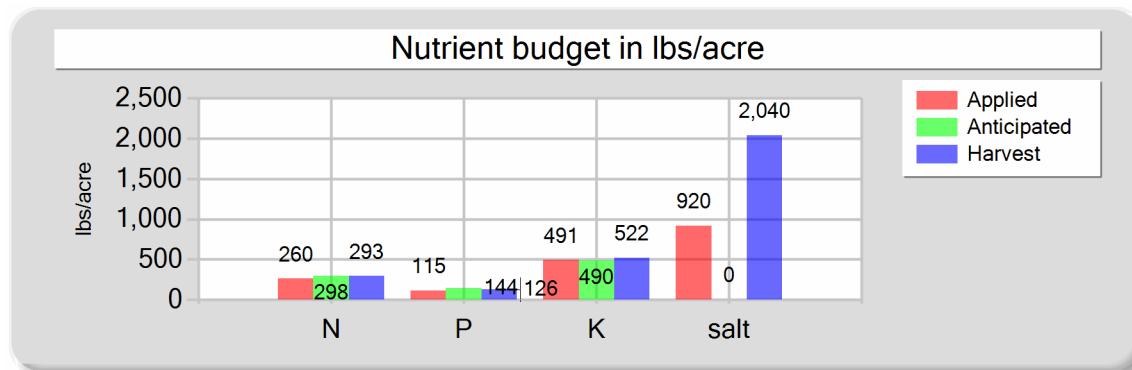
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B. NUTRIENT BUDGET

Field 1 - 12/05/2022: Wheat, silage, boot stage

Field name: Field 1	Crop: Wheat, silage, boot stage	Plant date: 12/05/2022
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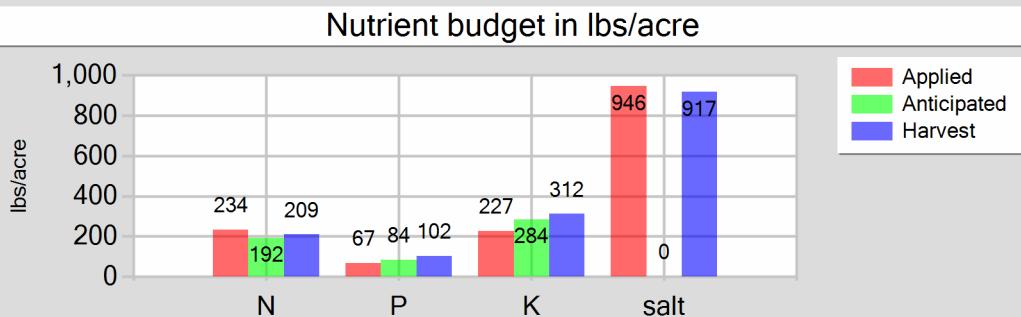
	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	37,800,000.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	1,392.05 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	17.40 inches/acre
Dry manure	218.00	102.00	388.00	0.00	
Process wastewater	31.70	13.27	102.71	468.15	1,860,000.00 gallons
Fresh water	3.15	0.00	0.00	451.87	68.50 acre-inches
Atmospheric deposition	7.00	0.00	0.00	0.00	0.86 inches/acre
Total nutrients applied	259.86	115.27	490.71	920.02	
Anticipated crop nutrient removal	297.60	144.00	489.60	0.00	
Actual crop nutrient removal	292.50	126.00	522.00	2,040.48	
Nutrient balance	-32.64	-10.73	-31.29	-1,120.46	
Applied to removed ratio	0.89	0.91	0.94	0.45	1 harvests

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Field 1 - 06/25/2023: Corn, silage

Field name: Field 1 Crop: Corn, silage Plant date: 06/25/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	50.00	0.00	0.00	0.00
Dry manure	160.00	64.00	214.00	0.00
Process wastewater	10.55	2.55	12.96	81.68
Fresh water	6.03	0.00	0.00	864.29
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	233.58	66.55	226.96	945.97
Anticipated crop nutrient removal	192.00	84.00	284.00	0.00
Actual crop nutrient removal	209.15	102.35	311.50	917.06
Nutrient balance	24.43	-35.80	-84.54	28.91
Applied to removed ratio	1.12	0.65	0.73	1.03

Fresh water applied
72,300,000.00 gallons
2,662.56 acre-inches
33.28 inches/acre

Process wastewater applied
540,000.00 gallons
19.89 acre-inches
0.25 inches/acre

Total harvests for the crop
1 harvests

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

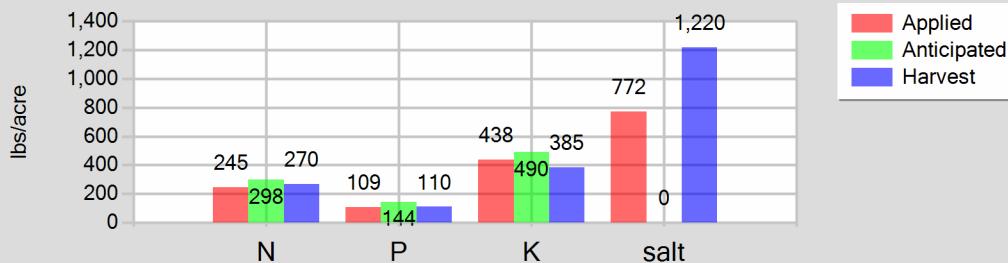
Field 3 - 12/05/2022: Wheat, silage, boot stage

Field name: Field 3

Crop: Wheat, silage, boot stage

Plant date: 12/05/2022

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	35,640,000.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	1,312.50 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	20.83 inches/acre
Dry manure	218.00	102.00	388.00	0.00	
Process wastewater	16.54	6.55	49.94	231.31	Process wastewater applied
Fresh water	3.78	0.00	0.00	541.01	816,000.00 gallons
Atmospheric deposition	7.00	0.00	0.00	0.00	30.05 acre-inches
Total nutrients applied	245.32	108.55	437.94	772.32	0.48 inches/acre
Anticipated crop nutrient removal	297.60	144.00	489.60	0.00	
Actual crop nutrient removal	270.15	109.89	384.61	1,219.87	Total harvests for the crop
Nutrient balance	-24.83	-1.34	53.32	-447.54	1 harvests
Applied to removed ratio	0.91	0.99	1.14	0.63	

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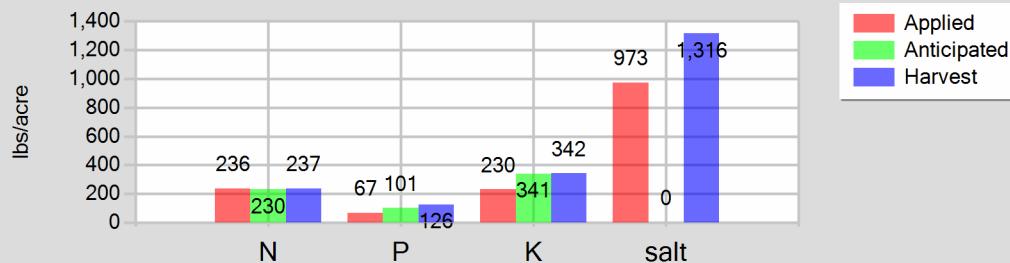
Field 3 - 06/25/2023: Corn, silage

Field name: Field 3

Crop: Corn, silage

Plant date: 06/25/2023

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	50.00	0.00	0.00	0.00
Dry manure	160.00	64.00	214.00	0.00
Process wastewater	13.40	3.24	16.45	103.72
Fresh water	6.07	0.00	0.00	868.90
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	236.46	67.24	230.45	972.62
Anticipated crop nutrient removal	230.40	100.80	340.80	0.00
Actual crop nutrient removal	236.57	126.17	341.71	1,315.60
Nutrient balance	-0.11	-58.93	-111.26	-342.98
Applied to removed ratio	1.00	0.53	0.67	0.74

Fresh water applied

57,240,000.00 gallons
2,107.95 acre-inches
33.46 inches/acre

Process wastewater applied

540,000.00 gallons
19.89 acre-inches
0.32 inches/acre

Total harvests for the crop

1 harvests

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NUTRIENT ANALYSES**A. MANURE ANALYSES**

22K1604

Sample and source description: 22K1604

Sample date: 11/29/2022 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: As-is

Moisture: 58.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	10,900.00	5,100.00	19,400.00	9,300.00	4,900.00	1,900.00	3,200.00	4,000.00		0.00
DL	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		10.00

23F0881

Sample and source description: 23F0881

Sample date: 06/07/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: As-is

Moisture: 35.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	8,000.00	3,200.00	10,700.00							0.00
DL	0.01	0.01	0.01							10.00

23I1769

Sample and source description: 23I1769

Sample date: 09/27/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: As-is

Moisture: 70.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	5,500.00	2,100.00	6,900.00	5,700.00	2,400.00	2,100.00	1,200.00	2,000.00		0.00
DL	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		10.00

B. PROCESS WASTEWATER ANALYSES

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22K1597

Sample and source description: 22K1597

Sample date: 11/29/2022 Material type: Process wastewater Source of analysis: Lab analysis pH: _____

	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	117.00	106.00	0.00	0.40	33.80	230.00	73.70	37.20	99.00	976.00	0.00	29.40	130.00		1,200
DL	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		10

23A0712

Sample and source description: 23A0712

Sample date: 01/26/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: _____

	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	188.00	157.00	0.00	0.70	87.40	694.00									3,080
DL	0.01	0.01	0.01	0.01	0.01	0.01									10

23I1777

Sample and source description: 23I1777

Sample date: 09/27/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: _____

	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	187.00	141.00	0.00	0.30	45.30	230.00	91.00	45.90	107.00	1,150.00	0.00	48.90	129.00		1,450
DL	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		10

23L0466

Sample and source description: 23L0466

Sample date: 12/07/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: _____

	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	276.00	192.00	0.00	0.40	98.00	474.00									2,700
DL	0.01	0.01	0.01	0.01	0.01	0.01									10

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C. FRESH WATER ANALYSES

Irrigation #3

22K1599

Sample description: 22K1599

Sample date: 11/29/2022 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	0.80										191.00	
DL	0.01										10.00	

D. SOIL ANALYSES

No soil analyses entered.

E. PLANT TISSUE ANALYSES

Field 1 - 12/05/2022: Wheat, silage, boot stage

23E2031

Sample and source description: 23E2031

Sample date: 05/23/2023 Source of analysis: Lab analysis Method of reporting: As-is

Moisture: 58.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	6,500.00	2,800.00	11,600.00		10.90
DL	0.01	0.01	0.01		0.01

Field 1 - 06/25/2023: Corn, silage

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Field 1 - 06/25/2023: Corn, silage

23J1115

Sample and source description: 23J1115

Sample date: 10/16/2023 Source of analysis: Lab analysis Method of reporting: As-is

Moisture: 63.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	4,700.00	2,300.00	7,000.00		5.60
DL	0.01	0.01	0.01		0.01

Field 3 - 12/05/2022: Wheat, silage, boot stage

23E2031

Sample and source description: 23E2031

Sample date: 05/23/2023 Source of analysis: Lab analysis Method of reporting: As-is

Moisture: 65.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	5,900.00	2,400.00	8,400.00		7.70
DL	0.01	0.01	0.01		0.01

Field 3 - 06/25/2023: Corn, silage

23J1115

Sample and source description: 23J1115

Sample date: 10/16/2023 Source of analysis: Lab analysis Method of reporting: As-is

Moisture: 67.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	4,500.00	2,400.00	6,500.00		7.70
DL	0.01	0.01	0.01		0.01

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F. SUBSURFACE (TILE) DRAINAGE ANALYSES

No subsurface (tile) drainage analyses entered.

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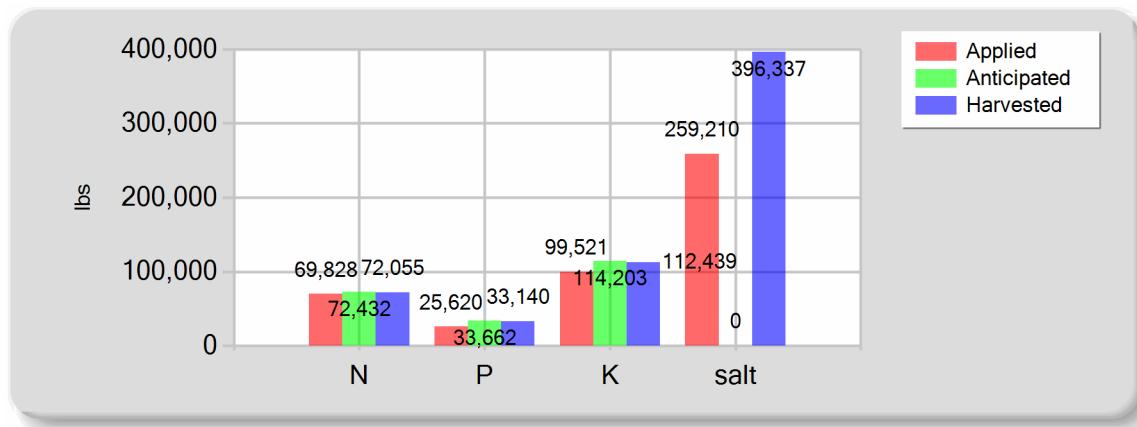
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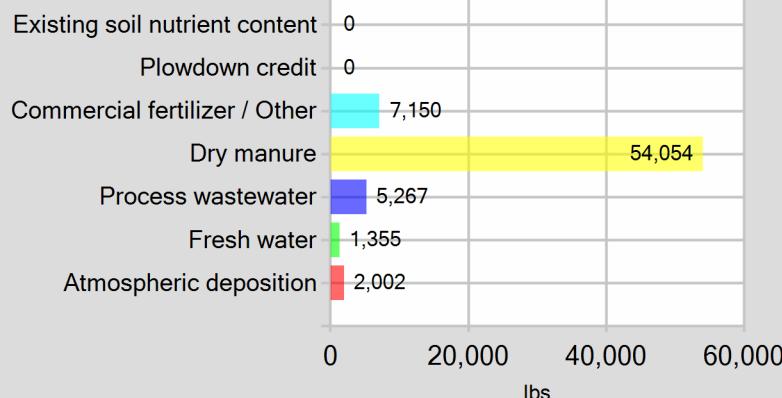
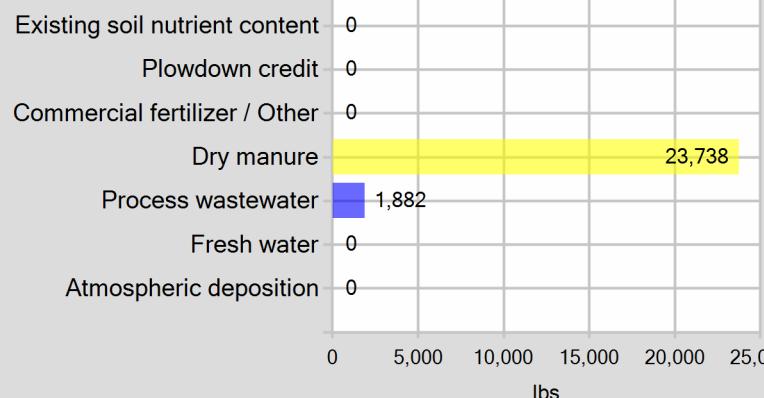
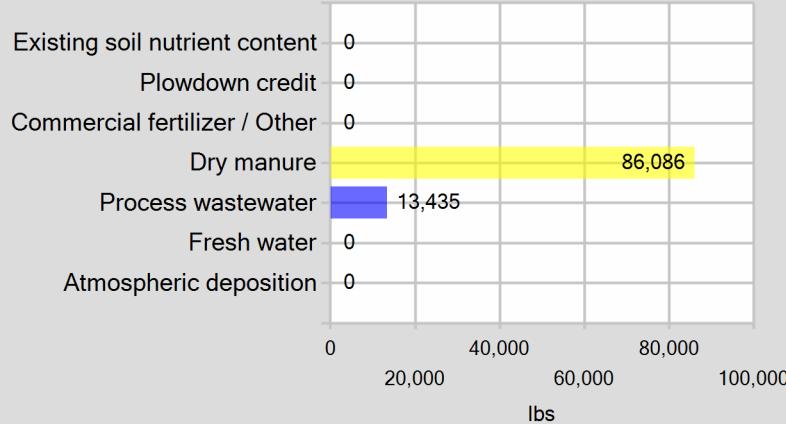
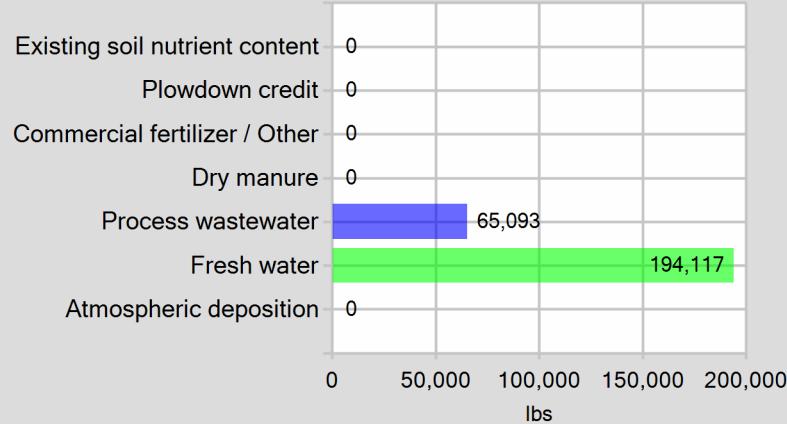
NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

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	7,150.00	0.00	0.00	0.00
Dry manure	54,054.00	23,738.00	86,086.00	0.00
Process wastewater	5,266.50	1,882.31	13,435.38	65,093.00
Fresh water	1,355.09	0.00	0.00	194,117.28
Atmospheric deposition	2,002.00	0.00	0.00	0.00
Total nutrients applied	69,827.60	25,620.31	99,521.38	259,210.29
Anticipated crop nutrient removal	72,432.00	33,662.40	114,203.20	0.00
Actual crop nutrient removal	72,055.14	33,139.84	112,438.64	396,337.19
Nutrient balance	-2,227.54	-7,519.53	-12,917.26	-137,126.91
Applied to removed ratio	0.97	0.77	0.89	0.65

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**

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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? Yes _____

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

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

B. EXPORT AGREEMENT STATEMENT

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

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ADDITIONAL NOTES

A. NOTES

Irrigation wells 1 & 2 are down and sealed.

Irrigation well 3 was turned off before sample could be pulled. Using 2022 lab.

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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.



Member, Jensen Dairy Farm, LLC

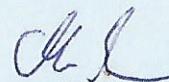
SIGNATURE OF OWNER OF FACILITY

Carlyn & Janet Jensen Living Trust

PRINT OR TYPE NAME

7/3/2024

DATE



SIGNATURE OF OPERATOR OF FACILITY

Carlos Silva

PRINT OR TYPE NAME

06/30/2024

DATE

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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.

Report of Dairy Well Water Analysis

Barry McCutcheon
7543 Elder Ave
Hanford CA 93230-9741
00-0001986 08

E-mail: martyverhoeven@gmail.com

Copy To:

Lab No.: 22K1599
Sampled By: M. Verhoeven
Requested By: Brian McCutcheon
Submitted Date: 11/30/22
Reported Date: 12/07/22
Project: Silva #1
Crop ID:

Nitrogen	
agricultural use Calcs	
calculated from nitrate-N	
lbs/AcFoot	lbs/AcInch

	Date Sampled	Time Sampled	EC $\mu\text{mhos/cm}$	EC mmhos/cm	NO ₃ -N mg/L		
1 Irrig #3 (Stand Pipe)	11/29/22	12:20	191	0.19	0.8	2.18	0.18

Water for Crop Use Nutrient Management	Total Salts	Total Salts	Nitrate Nitrogen
	Salts	Salts	Nitrogen
Low Levels	< 900	< 0.90	< 2.0
Significant Levels	900-2200	0.90-2.2	2.0-10.0
High Levels	2200+	2.2+	10.0+

Sampling abbreviations: H.B. = hose bib, S.P. = stand pipe, Dom. = domestic well, IR = irrigation well, AG = ag well.

Nitrate exceeds Water Quality MCL levels if results are above 10 mg/l nitrate-nitrogen NO₃-N (equivalent to 45 mg/l nitrate, NO₃).

Total Salt results are used to monitor changes of salt in the well aquifers between annual tests.

MCL = Maximum Contaminant Level according to the California Domestic Water Quality and Monitoring Regulations (Title 22)

MDL = Method Detection Limit; RL = Reporting Limit, mg/L = ppm.

SM = Standard Methods for the Examination of Water and Wastewater

EPA = Environmental Protection Agency methods used unless otherwise indicated.

