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: Souza's Dairy, Inc.

Physical address of dairy:

Number and Street	City	County	Zip Code
8555 S Valentine AVE	Fresno	Fresno	93706

Street and nearest cross street (if no address):

Date facility was originally placed in operation: 01/01/1965

Regional Water Quality Control Board Basin Plan designation: Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

0035-0342-0028-0000 0035-0342-0043-0000 0035-0342-009S-0000

B. OPERATORS

Souza, Daniel

Operator name: Souza, Daniel

Telephone no.: (559) 264-1989 Landline, (559) 289-1795 Cellular

Mailing Address Number and Street	City	State	Zip Code
8555 S Valentine Avenue	Fresno	CA	93706

Tavares, Sandy

Operator name: Tavares, Sandy

Telephone no.: (559) 264-1989 Landline, (559) 352-6428 Cellular

Mailing Address Number and Street	City	State	Zip Code
8555 S Valentine Avenue	Fresno	CA	93706

This operator is responsible for paying permit fees.

C. OWNERS

Souza, Daniel

Legal owner name: Souza, Daniel

Telephone no.: (559) 264-1989 Landline, (559) 289-1795 Cellular

Mailing Address Number and Street	City	State	Zip Code
8555 S Valentine Avenue	Fresno	CA	93706

Tavares, Sandy

Legal owner name: Tavares, Sandy

Telephone no.: (559) 264-1989 Landline (559) 352-6428 Cellular

8555 S Valentine Avenue	Fresno	CA	93706
Mailing Address Number and Street	City	State	Zip Code

This owner is responsible for paying permit fees.

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AVAILABLE NUTRIENTS

A. HERD INFORMATION

	Milk Cows	Dry Cows	Bred Heifers (15-24 mo.)	Heifers (7-14 mo. to breeding)	Calves (4-6 mo.)	Calves (0-3 mo.)
Number open confinement	0	165	790	480	295	0
Number under roof	1,960	0	0	0	0	0
Maximum number	1,972	174	820	500	325	0
Average number	1,960	165	790	480	295	0
Avg live weight (lbs)	1,400	1,450	1,000	750		

Predominant milk cow breed: Holstein

Average milk production: 80 *pounds per cow per day*

B. MANURE GENERATED

Total manure excreted by the herd: 68,906.72 *tons per reporting period*

Total nitrogen from manure: 853,130.41 *lbs per reporting period*

After ammonia losses (30% loss applied): 597,191.29 *lbs per reporting period*

Total phosphorus from manure: 142,251.63 *lbs per reporting period*

Total potassium from manure: 388,235.28 *lbs per reporting period*

Total salt from manure: 960,807.75 *lbs per reporting period*

C. PROCESS WASTEWATER GENERATED

Process wastewater generated: 48,564,000 *gallons*

Total nitrogen generated: 111,852.61 *lbs*

Total phosphorus generated: 12,800.84 *lbs*

Total potassium generated: 169,939.78 *lbs*

Total salt generated: 907,310.46 *lbs*

	48,564,000	*gallons applied*
+	0	*gallons exported*
-	0	*gallons imported*
=	48,564,000	*gallons generated*

D. FRESH WATER SOURCES

Source Description	Type
#1-Dom	Ground water
#2-Dom	Ground water
#3515-Dom	Ground water
#3-Dom	Ground water
#4-Dom	Ground water

Source Description	Type
#7762-Dom	Ground water
#8626-Dom	Ground water
Carsten-North	Ground water
Deis Well	Ground water
F.I.D. Canal	Surface water
Hay Barn Well	Ground water
Hospital Well	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

Date	Material type	Quantity	Reporting basis	Moisture (%)	Density (lbs/cu ft)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
03/25/2023	Corral solids	850.00 *ton*	Dry-weight	40.3		21,700.00	6,540.00	40,300.00		30.70
05/09/2023	Corral solids	672.00 *ton*	Dry-weight	40.3		21,700.00	6,540.00	40,300.00		30.70
05/10/2023	Corral solids	275.00 *ton*	Dry-weight	42.8		16,900.00	4,240.00	15,300.00		0.00
05/19/2023	Corral solids	1,925.00 *ton*	Dry-weight	42.8		16,900.00	4,240.00	15,300.00		0.00
05/31/2023	Corral solids	1,000.00 *ton*	Dry-weight	42.8		16,900.00	4,240.00	15,300.00		0.00
06/05/2023	Corral solids	4,700.00 *ton*	Dry-weight	42.8		16,900.00	4,240.00	15,300.00		0.00
10/10/2023	Corral solids	850.00 *ton*	Dry-weight	49.9		12,200.00	2,680.00	9,600.00		0.00
11/15/2023	Corral solids	525.00 *ton*	Dry-weight	42.8		16,900.00	4,240.00	15,300.00		0.00
12/11/2023	Corral solids	1,300.00 *ton*	Dry-weight	42.8		16,900.00	4,240.00	15,300.00		0.00

No liquid nutrient exports entered.

Material type	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Dry manure	237,844.72	61,339.18	251,630.84	557,901.28
Process wastewater	0.00	0.00	0.00	0.00
Total exports for all materials	237,844.72	61,339.18	251,630.84	557,901.28

APPLICATION AREA

A. LIST OF LAND APPLICATION AREAS

Field name	Controlled acres	Cropable acres	Total harvests	Type of waste applied	Parcel number
#402	40	38	2	both	XX35-X142-XX29-XXXX XX35-X142-XX30-XXXX
#407	40	40	2	both	XX35-X142-XX29-XXXX XX35-X142-XX32-XXXX
Brawley #446	18	18	2	process wastewater	0035-0342-028S-0000
Carsten E #448	39	39	2	both	0035-0342-007S-0000
Carsten N	38	37	2	both	XX35-X342-XX47-XXXX
Carsten S	20	19	2	process wastewater	XX35-X342-XX10-XXXX
Carsten W #448	40	40	2	process wastewater	0035-0342-004S-0000 0035-0342-006S-0000
Dairy E	36	36	2	process wastewater	0035-0342-042S-0000 0035-0342-043S-0000
Dairy W&S #443	60	60	2	both	0035-0142-043S-0000 0035-0342-042S-0000
Deis E&W #418	57	57	2	process wastewater	0035-0341-006S-0000
Salwassser #447	95	93	2	both	0035-0142-0018-0000 0035-0142-0023-0000 0035-0142-043S-0000
Scharton #449	37	37	2	both	0035-0341-0010-0000 0035-0341-0013-0000
Totals for areas that were used for application	520	514	24		
Totals for areas that were not used for application					
Land application area totals	520	514	24		

B. CROPS AND HARVESTS

#402

Field name: #402

#402

12/16/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 38 Plant date: 12/16/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/30/2023	757.00 *ton*	Dry-weight		61.6	14,900.00	2,300.00	17,300.00		8.14

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	216.00	30.60	149.40	1,080.00
Total actual harvest content	19.92	227.96	35.19	264.68	1,245.37

06/15/2023: Corn, silage

Crop: Corn, silage Acres planted: 38 Plant date: 06/15/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/06/2023	1,015.00 *ton*	Dry-weight		71.4	14,000.00	2,480.00	11,200.00		6.40

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	252.00	42.00	184.80	1,120.00
Total actual harvest content	26.71	213.90	37.89	171.12	977.82

#407

Field name: #407

11/24/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 40 Plant date: 11/24/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/08/2023	730.00 *ton*	Dry-weight		67.4	19,800.00	4,030.00	26,300.00		10.40

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	216.00	30.60	149.40	1,080.00
Total actual harvest content	18.25	235.60	47.95	312.94	1,237.50

#407

06/17/2023: Corn, silage

Crop: Corn, silage Acres planted: 40 Plant date: 06/17/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/06/2023	1,200.00 *ton*	Dry-weight		71.4	14,000.00	2,480.00	11,200.00		6.40

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	252.00	42.00	184.80	1,120.00
Total actual harvest content	30.00	240.24	42.56	192.19	1,098.24

Brawley #446

Field name: Brawley #446

12/17/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 18 Plant date: 12/17/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/30/2023	333.00 *ton*	Dry-weight		69.2	14,300.00	2,690.00	21,100.00		9.48

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	216.00	30.60	149.40	1,080.00
Total actual harvest content	18.50	162.96	30.66	240.46	1,080.34

06/28/2023: Corn, silage

Crop: Corn, silage Acres planted: 18 Plant date: 06/28/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/20/2023	481.00 *ton*	Dry-weight		76.2	16,800.00	2,080.00	24,200.00		7.60

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	252.00	42.00	184.80	1,120.00
Total actual harvest content	26.72	213.69	26.46	307.82	966.70

Carsten E #448

Field name: Carsten E #448

12/05/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 39 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 (%)
05/24/2023	1,002.00 *ton*	Dry-weight		69.6	17,000.00	2,640.00	17,500.00		7.28

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	216.00	30.60	149.40	1,080.00
Total actual harvest content	25.69	265.56	41.24	273.37	1,137.20

06/01/2023: Corn, silage

Crop: Corn, silage Acres planted: 39 Plant date: 06/01/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/05/2023	1,338.00 *ton*	Dry-weight		71.2	10,700.00	1,920.00	13,800.00		6.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	252.00	42.00	184.80	1,120.00
Total actual harvest content	34.31	211.45	37.94	272.70	1,185.67

Carsten N

Field name: Carsten N

11/18/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 37 Plant date: 11/18/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/05/2023	826.00 *ton*	Dry-weight		64.8	14,900.00	2,390.00	17,100.00		7.48

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	216.00	30.60	149.40	1,080.00
Total actual harvest content	22.32	234.17	37.56	268.75	1,175.58

Carsten N

06/23/2023: Corn, silage

Crop: Corn, silage Acres planted: 37 Plant date: 06/23/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/11/2023	1,020.00 *ton*	Dry-weight		74.4	11,600.00	2,100.00	18,400.00		9.10

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	252.00	42.00	184.80	1,120.00
Total actual harvest content	27.57	163.73	29.64	259.71	1,284.43

Carsten S

Field name: Carsten S

12/10/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 19 Plant date: 12/10/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/30/2023	341.00 *ton*	Dry-weight		68.6	16,100.00	2,660.00	18,900.00		8.61

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	216.00	30.60	149.40	1,080.00
Total actual harvest content	17.95	181.46	29.98	213.02	970.43

07/12/2023: Corn, silage

Crop: Corn, silage Acres planted: 19 Plant date: 07/12/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/11/2023	498.00 *ton*	Dry-weight		68.0	9,600.00	1,840.00	13,000.00		6.20

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	252.00	42.00	184.80	1,120.00
Total actual harvest content	26.21	161.04	30.87	218.07	1,040.03

Carsten W #448

Field name: Carsten W #448

12/12/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 40 Plant date: 12/12/2022

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	897.00 *ton*	Dry-weight		60.8	14,000.00	2,040.00	14,900.00		8.75

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	216.00	30.60	149.40	1,080.00
Total actual harvest content	22.43	246.14	35.87	261.96	1,538.36

05/27/2023: Corn, silage

Crop: Corn, silage Acres planted: 40 Plant date: 05/27/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/24/2023	1,341.00 *ton*	Dry-weight		69.4	12,100.00	2,490.00	16,900.00		6.90

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	252.00	42.00	184.80	1,120.00
Total actual harvest content	33.53	248.26	51.09	346.74	1,415.69

Dairy E

Field name: Dairy E

12/08/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 36 Plant date: 12/08/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/24/2023	675.00 *ton*	Dry-weight		70.0	16,600.00	2,970.00	20,300.00		8.55

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	216.00	30.60	149.40	1,080.00
Total actual harvest content	18.75	186.75	33.41	228.38	961.88

Dairy E

07/02/2023: Corn, silage

Crop: Corn, silage Acres planted: 36 Plant date: 07/02/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/21/2023	1,017.00 *ton*	Dry-weight		72.4	13,700.00	2,180.00	15,700.00		5.20

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	252.00	42.00	184.80	1,120.00
Total actual harvest content	28.25	213.64	33.99	244.83	810.89

Dairy W&S #443

Field name: Dairy W&S #443

12/14/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 60 Plant date: 12/14/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
06/01/2023	1,111.00 *ton*	Dry-weight		64.6	14,400.00	2,250.00	15,800.00		8.40

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	216.00	30.60	149.40	1,080.00
Total actual harvest content	18.52	188.78	29.50	207.13	1,101.22

07/02/2023: Corn, silage

Crop: Corn, silage Acres planted: 60 Plant date: 07/02/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/20/2023	1,605.00 *ton*	Dry-weight		71.4	15,100.00	2,110.00	20,400.00		6.30

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	252.00	42.00	184.80	1,120.00
Total actual harvest content	26.75	231.05	32.29	312.14	963.96

Deis E&W #418

Field name: Deis E&W #418

11/20/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 57 Plant date: 11/20/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/04/2023	1,000.00 *ton*	Dry-weight		71.4	21,800.00	4,010.00	28,500.00		10.30

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	216.00	30.60	149.40	1,080.00
Total actual harvest content	17.54	218.76	40.24	286.00	1,033.61

06/13/2023: Corn, silage

Crop: Corn, silage Acres planted: 57 Plant date: 06/13/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/11/2023	1,620.00 *ton*	Dry-weight		74.4	13,600.00	2,260.00	21,400.00		10.70

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	252.00	42.00	184.80	1,120.00
Total actual harvest content	28.42	197.90	32.89	311.40	1,557.02

Salwassser #447

Field name: Salwassser #447

11/16/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 93 Plant date: 11/16/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/05/2023	2,053.00 *ton*	Dry-weight		70.4	24,500.00	4,240.00	30,200.00		12.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	216.00	30.60	149.40	1,080.00
Total actual harvest content	22.08	320.18	55.41	394.67	1,568.23

Salwassser #447

05/27/2023: Corn, silage

Crop: Corn, silage Acres planted: 93 Plant date: 05/27/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/14/2023	1,981.00 *ton*	Dry-weight		66.8	12,200.00	1,450.00	14,200.00		6.30

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	252.00	42.00	184.80	1,120.00
Total actual harvest content	21.30	172.56	20.51	200.84	891.07

Scharton #449

Field name: Scharton #449

12/18/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 37 Plant date: 12/18/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
06/01/2023	1,029.00 *ton*	Dry-weight		62.6	15,100.00	2,020.00	13,700.00		7.62

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	216.00	30.60	149.40	1,080.00
Total actual harvest content	27.81	314.12	42.02	284.99	1,585.15

06/22/2023: Corn, silage

Crop: Corn, silage Acres planted: 37 Plant date: 06/22/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/10/2023	1,065.00 *ton*	Dry-weight		70.8	12,800.00	1,360.00	12,000.00		5.90

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	252.00	42.00	184.80	1,120.00
Total actual harvest content	28.78	215.16	22.86	201.72	991.77

NUTRIENT BUDGET

A. LAND APPLICATIONS

#402 - 12/16/2022: Wheat, silage, soft dough

Field name: #402

Crop: Wheat, silage, soft dough

Plant date: 12/16/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
12/05/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Blended Lg and Fresh Water Application	Process wastewater	37.19	8.92	71.91	519.88	864,000.00 *gal*
Application event totals		37.19	8.92	71.91	519.88	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
12/12/2022	Broadcast/incorporate	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Manure Application	Corral solids	159.25	39.95	144.17	0.00	313.00 *ton*
Application event totals		159.25	39.95	144.17	0.00	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/12/2023	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
Blended Lg and Fresh Water Application	Process wastewater	42.50	12.28	86.14	455.37	864,000.00 *gal*
Application event totals		42.50	12.28	86.14	455.37	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/12/2023	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
Lagoon Water Application	Process wastewater	9.92	4.43	66.66	209.98	576,000.00 *gal*
Carsten-North	Ground water	24.70	0.00	0.00	716.65	4,446,000.00 *gal*
Application event totals		34.62	4.43	66.66	926.63	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
F.I.D. Canal	Surface water	1.21	0.00	0.00	37.39	4,602,000.00 *gal*
Application event totals		1.21	0.00	0.00	37.39	

#402 - 06/15/2023: Corn, silage

Field name: #402

Crop: Corn, silage

Plant date: 06/15/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/02/2023	Broadcast/incorporate	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Manure Application	Corral solids	174.00	43.66	157.53	0.00	342.00 *ton*
Application event totals		174.00	43.66	157.53	0.00	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/05/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
F.I.D. Canal	Surface water	1.25	0.00	0.00	38.66	4,758,000.00 *gal*
Application event totals		1.25	0.00	0.00	38.66	

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
Lagoon Water Application	Process wastewater	22.77	2.77	28.08	136.61	864,000.00 *gal*
F.I.D. Canal	Surface water	1.21	0.00	0.00	37.39	4,602,000.00 *gal*
Application event totals		23.98	2.77	28.08	174.01	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/25/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Carsten-North	Ground water	23.84	0.00	0.00	691.51	4,290,000.00 *gal*
Application event totals		23.84	0.00	0.00	691.51	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/06/2023	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
F.I.D. Canal	Surface water	1.11	0.00	0.00	34.22	4,212,000.00 *gal*
Application event totals		1.11	0.00	0.00	34.22	

#402 - 06/15/2023: 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
Lagoon Water Application	Process wastewater	22.77	2.77	28.08	136.61	864,000.00 *gal*
F.I.D. Canal	Surface water	1.13	0.00	0.00	34.86	4,290,000.00 *gal*
Application event totals		23.90	2.77	28.08	171.47	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/30/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Carsten-North	Ground water	22.97	0.00	0.00	666.36	4,134,000.00 *gal*
Application event totals		22.97	0.00	0.00	666.36	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/11/2023	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
F.I.D. Canal	Surface water	1.17	0.00	0.00	36.13	4,446,000.00 *gal*
Application event totals		1.17	0.00	0.00	36.13	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/23/2023	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
F.I.D. Canal	Surface water	1.13	0.00	0.00	34.86	4,290,000.00 *gal*
Application event totals		1.13	0.00	0.00	34.86	

#407 - 11/24/2022: Wheat, silage, soft dough

Field name: #407

Crop: Wheat, silage, soft dough

Plant date: 11/24/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
11/15/2022	Broadcast/incorporate	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Manure Application	Corral solids	152.02	26.68	202.35	0.00	329.00 *ton*
Application event totals		152.02	26.68	202.35	0.00	

#407 - 11/24/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
12/07/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Blended Lg and Fresh Water Application	Process wastewater	35.33	8.47	68.32	493.89	864,000.00 *gal*
Application event totals		35.33	8.47	68.32	493.89	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
01/05/2023	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
Blended Lg and Fresh Water Application	Process wastewater	30.28	8.75	61.38	324.45	648,000.00 *gal*
Application event totals		30.28	8.75	61.38	324.45	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/15/2023	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
Blended Lg and Fresh Water Application	Process wastewater	30.28	8.75	61.38	324.45	648,000.00 *gal*
Application event totals		30.28	8.75	61.38	324.45	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
F.I.D. Canal	Surface water	1.16	0.00	0.00	35.66	4,620,000.00 *gal*
Application event totals		1.16	0.00	0.00	35.66	

#407 - 06/17/2023: Corn, silage

Field name: #407

Crop: Corn, silage

Plant date: 06/17/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/02/2023	Broadcast/incorporate	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Manure Application	Corral solids	174.00	43.66	157.53	0.00	360.00 *ton*
Application event totals		174.00	43.66	157.53	0.00	

#407 - 06/17/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/04/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Application	Process wastewater	14.13	6.31	94.99	299.22	864,000.00 *gal*
F.I.D. Canal	Surface water	1.28	0.00	0.00	39.55	5,124,000.00 *gal*
Application event totals		15.41	6.31	94.99	338.77	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/11/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Carsten-North	Ground water	26.16	0.00	0.00	758.92	4,956,000.00 *gal*
Application event totals		26.16	0.00	0.00	758.92	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/27/2023	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
F.I.D. Canal	Surface water	1.16	0.00	0.00	35.66	4,620,000.00 *gal*
Application event totals		1.16	0.00	0.00	35.66	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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 Water Application	Process wastewater	21.63	2.63	26.68	129.78	864,000.00 *gal*
F.I.D. Canal	Surface water	1.14	0.00	0.00	35.01	4,536,000.00 *gal*
Application event totals		22.77	2.63	26.68	164.80	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
F.I.D. Canal	Surface water	1.16	0.00	0.00	35.66	4,620,000.00 *gal*
Application event totals		1.16	0.00	0.00	35.66	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/01/2023	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
F.I.D. Canal	Surface water	1.11	0.00	0.00	34.37	4,452,000.00 *gal*
Application event totals		1.11	0.00	0.00	34.37	

#407 - 06/17/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
Carsten-North	Ground water	24.83	0.00	0.00	720.33	4,704,000.00 *gal*
Application event totals		24.83	0.00	0.00	720.33	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/25/2023	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
Carsten-North	Ground water	24.39	0.00	0.00	707.46	4,620,000.00 *gal*
Application event totals		24.39	0.00	0.00	707.46	

Brawley #446 - 12/17/2022: Wheat, silage, soft dough

Field name: Brawley #446

Crop: Wheat, silage, soft dough

Plant date: 12/17/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
01/06/2023	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
Blended Lg and Fresh Water Application	Process wastewater	44.86	12.96	90.93	480.67	432,000.00 *gal*
Application event totals		44.86	12.96	90.93	480.67	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/30/2023	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
Blended Lg and Fresh Water Application	Process wastewater	44.86	12.96	90.93	480.67	432,000.00 *gal*
Application event totals		44.86	12.96	90.93	480.67	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/20/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Hay Barn Well	Ground water	23.07	0.00	0.00	714.60	2,304,000.00 *gal*
Application event totals		23.07	0.00	0.00	714.60	

Brawley #446 - 06/28/2023: Corn, silage

Field name: Brawley #446

Crop: Corn, silage

Plant date: 06/28/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/01/2023	Broadcast/incorporate	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Slurry Manure Application	Process wastewater	142.70	7.72	98.05	563.29	90,000.00 *gal*
Application event totals		142.70	7.72	98.05	563.29	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/10/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
F.I.D. Canal	Surface water	1.24	0.00	0.00	38.29	2,232,000.00 *gal*
Application event totals		1.24	0.00	0.00	38.29	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/22/2023	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
F.I.D. Canal	Surface water	1.20	0.00	0.00	37.05	2,160,000.00 *gal*
Application event totals		1.20	0.00	0.00	37.05	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
Hay Barn Well	Ground water	20.19	0.00	0.00	625.27	2,016,000.00 *gal*
Application event totals		20.19	0.00	0.00	625.27	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
Lagoon Water Application	Process wastewater	24.03	2.92	29.64	144.20	432,000.00 *gal*
F.I.D. Canal	Surface water	1.12	0.00	0.00	34.58	2,016,000.00 *gal*
Application event totals		25.16	2.92	29.64	178.78	

Brawley #446 - 06/28/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/31/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
F.I.D. Canal	Surface water	1.16	0.00	0.00	35.82	2,088,000.00 *gal*
Application event totals		1.16	0.00	0.00	35.82	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/12/2023	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
Hay Barn Well	Ground water	20.19	0.00	0.00	625.27	2,016,000.00 *gal*
Application event totals		20.19	0.00	0.00	625.27	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/24/2023	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
Hay Barn Well	Ground water	20.91	0.00	0.00	647.61	2,088,000.00 *gal*
Application event totals		20.91	0.00	0.00	647.61	

Carsten E #448 - 12/05/2022: Wheat, silage, soft dough

Field name: Carsten E #448

Crop: Wheat, silage, soft dough

Plant date: 12/05/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
12/20/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Blended Lg and Fresh Water Application	Process wastewater	126.45	5.36	173.41	998.32	1,728,000.00 *gal*
Application event totals		126.45	5.36	173.41	998.32	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
02/26/2023	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
Blended Lg and Fresh Water Application	Process wastewater	126.45	5.36	173.41	998.32	1,728,000.00 *gal*
Application event totals		126.45	5.36	173.41	998.32	

Carsten E #448 - 12/05/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
Lagoon Water Application	Process wastewater	51.76	14.95	104.92	554.62	1,080,000.00 *gal*
Carsten-North	Ground water	24.07	0.00	0.00	698.28	4,446,000.00 *gal*
Application event totals		75.83	14.95	104.92	1,252.90	

Carsten E #448 - 06/01/2023: Corn, silage

Field name: Carsten E #448

Crop: Corn, silage

Plant date: 06/01/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/20/2023	Broadcast/incorporate	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Manure Application	Corral solids	199.28	50.00	180.42	0.00	402.00 *ton*
Application event totals		199.28	50.00	180.42	0.00	

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
F.I.D. Canal	Surface water	1.22	0.00	0.00	37.67	4,758,000.00 *gal*
Application event totals		1.22	0.00	0.00	37.67	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/11/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Application	Process wastewater	22.18	2.70	27.36	133.11	864,000.00 *gal*
F.I.D. Canal	Surface water	1.18	0.00	0.00	36.43	4,602,000.00 *gal*
Application event totals		23.37	2.70	27.36	169.54	

Carsten E #448 - 06/01/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/27/2023	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
F.I.D. Canal	Surface water	1.10	0.00	0.00	33.96	4,290,000.00 *gal*
Application event totals		1.10	0.00	0.00	33.96	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
F.I.D. Canal	Surface water	1.08	0.00	0.00	33.35	4,212,000.00 *gal*
Application event totals		1.08	0.00	0.00	33.35	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
F.I.D. Canal	Surface water	1.10	0.00	0.00	33.96	4,290,000.00 *gal*
Application event totals		1.10	0.00	0.00	33.96	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/01/2023	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
Lagoon Water Application	Process wastewater	22.18	2.70	27.36	133.11	864,000.00 *gal*
F.I.D. Canal	Surface water	1.06	0.00	0.00	32.73	4,134,000.00 *gal*
Application event totals		23.25	2.70	27.36	165.84	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
Hospital Well	Ground water	0.76	0.00	0.00	100.84	4,446,000.00 *gal*
Application event totals		0.76	0.00	0.00	100.84	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/25/2023	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
Hospital Well	Ground water	0.73	0.00	0.00	97.30	4,290,000.00 *gal*
Application event totals		0.73	0.00	0.00	97.30	

Carsten N - 11/18/2022: Wheat, silage, soft dough

Field name: Carsten N

Crop: Wheat, silage, soft dough

Plant date: 11/18/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
12/22/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Blended Lg and Fresh Water Application	Process wastewater	133.29	5.65	182.79	1,052.28	1,728,000.00 *gal*
Application event totals		133.29	5.65	182.79	1,052.28	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/10/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Application	Process wastewater	99.97	4.24	137.09	789.21	1,296,000.00 *gal*
Carsten-North	Ground water	25.37	0.00	0.00	736.02	4,446,000.00 *gal*
Application event totals		125.34	4.24	137.09	1,525.23	

Carsten N - 06/23/2023: Corn, silage

Field name: Carsten N

Crop: Corn, silage

Plant date: 06/23/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/20/2023	Broadcast/incorporate	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Manure Application	Corral solids	199.08	49.95	180.24	0.00	381.00 *ton*
Application event totals		199.08	49.95	180.24	0.00	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/09/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Hospital Well	Ground water	0.86	0.00	0.00	113.75	4,758,000.00 *gal*
Application event totals		0.86	0.00	0.00	113.75	

Carsten N - 06/23/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/17/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Application	Process wastewater	23.38	2.85	28.84	140.30	864,000.00 *gal*
F.I.D. Canal	Surface water	1.20	0.00	0.00	37.10	4,446,000.00 *gal*
Application event totals		24.59	2.85	28.84	177.41	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/02/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
F.I.D. Canal	Surface water	1.22	0.00	0.00	37.75	4,524,000.00 *gal*
Application event totals		1.22	0.00	0.00	37.75	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/14/2023	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
Hospital Well	Ground water	0.77	0.00	0.00	102.56	4,290,000.00 *gal*
Application event totals		0.77	0.00	0.00	102.56	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
Lagoon Water Application	Process wastewater	23.38	2.85	28.84	140.30	864,000.00 *gal*
F.I.D. Canal	Surface water	1.18	0.00	0.00	36.45	4,368,000.00 *gal*
Application event totals		24.57	2.85	28.84	176.76	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/07/2023	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
F.I.D. Canal	Surface water	1.22	0.00	0.00	37.75	4,524,000.00 *gal*
Application event totals		1.22	0.00	0.00	37.75	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
F.I.D. Canal	Surface water	1.18	0.00	0.00	36.45	4,368,000.00 *gal*
Application event totals		1.18	0.00	0.00	36.45	

Carsten S - 12/10/2022: Wheat, silage, soft dough

Field name: Carsten S

Crop: Wheat, silage, soft dough

Plant date: 12/10/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
11/30/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Blended Lg and Fresh Water Application	Process wastewater	64.89	2.75	88.99	512.30	432,000.00 *gal*
Application event totals		64.89	2.75	88.99	512.30	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/05/2023	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
Carsten-North	Ground water	26.87	0.00	0.00	779.52	2,418,000.00 *gal*
Application event totals		26.87	0.00	0.00	779.52	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/08/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Carsten-North	Ground water	28.60	0.00	0.00	829.81	2,574,000.00 *gal*
Application event totals		28.60	0.00	0.00	829.81	

Carsten S - 07/12/2023: Corn, silage

Field name: Carsten S

Crop: Corn, silage

Plant date: 07/12/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/24/2023	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
Carsten-North	Ground water	26.87	0.00	0.00	779.52	2,418,000.00 *gal*
Application event totals		26.87	0.00	0.00	779.52	

Carsten S - 07/12/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/05/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Application	Process wastewater	64.89	2.75	88.99	512.30	432,000.00 *gal*
F.I.D. Canal	Surface water	1.23	0.00	0.00	38.03	2,340,000.00 *gal*
Application event totals		66.12	2.75	88.99	550.32	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/21/2023	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
Carsten-North	Ground water	24.27	0.00	0.00	704.08	2,184,000.00 *gal*
Application event totals		24.27	0.00	0.00	704.08	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
Carsten-North	Ground water	24.27	0.00	0.00	704.08	2,184,000.00 *gal*
Application event totals		24.27	0.00	0.00	704.08	

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
F.I.D. Canal	Surface water	1.19	0.00	0.00	36.76	2,262,000.00 *gal*
Application event totals		1.19	0.00	0.00	36.76	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/26/2023	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
Carsten-North	Ground water	24.27	0.00	0.00	704.08	2,184,000.00 *gal*
Application event totals		24.27	0.00	0.00	704.08	

Carsten W #448 - 12/12/2022: Wheat, silage, soft dough

Field name: Carsten W #448

Crop: Wheat, silage, soft dough

Plant date: 12/12/2022

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

Carsten W #448 - 12/12/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
11/28/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Blended Lg and Fresh Water Application	Process wastewater	123.29	5.23	169.08	973.36	1,728,000.00 *gal*
Application event totals		123.29	5.23	169.08	973.36	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
02/28/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Blended Lg and Fresh Water Application	Process wastewater	80.75	23.32	163.67	865.21	1,728,000.00 *gal*
Application event totals		80.75	23.32	163.67	865.21	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
Carsten-North	Ground water	25.08	0.00	0.00	727.68	4,752,000.00 *gal*
Application event totals		25.08	0.00	0.00	727.68	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/09/2023	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
Carsten-North	Ground water	24.70	0.00	0.00	716.65	4,680,000.00 *gal*
Application event totals		24.70	0.00	0.00	716.65	

Carsten W #448 - 05/27/2023: Corn, silage

Field name: Carsten W #448

Crop: Corn, silage

Plant date: 05/27/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/13/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Carsten-North	Ground water	27.36	0.00	0.00	793.83	5,184,000.00 *gal*
Application event totals		27.36	0.00	0.00	793.83	

Carsten W #448 - 05/27/2023: Corn, silage

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
Lagoon Water Application	Process wastewater	66.78	2.83	91.58	527.24	936,000.00 *gal*
Carsten-North	Ground water	27.36	0.00	0.00	793.83	5,184,000.00 *gal*
Application event totals		94.15	2.83	91.58	1,321.07	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/06/2023	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
F.I.D. Canal	Surface water	1.26	0.00	0.00	38.90	5,040,000.00 *gal*
Application event totals		1.26	0.00	0.00	38.90	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
Carsten-North	Ground water	25.46	0.00	0.00	738.70	4,824,000.00 *gal*
Application event totals		25.46	0.00	0.00	738.70	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
Carsten-North	Ground water	25.46	0.00	0.00	738.70	4,824,000.00 *gal*
Application event totals		25.46	0.00	0.00	738.70	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/11/2023	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
F.I.D. Canal	Surface water	1.19	0.00	0.00	36.68	4,752,000.00 *gal*
Application event totals		1.19	0.00	0.00	36.68	

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
Carsten-North	Ground water	25.46	0.00	0.00	738.70	4,824,000.00 *gal*
Application event totals		25.46	0.00	0.00	738.70	

Dairy E - 12/08/2022: Wheat, silage, soft dough

Field name: Dairy E

Crop: Wheat, silage, soft dough — Plant date: 12/08/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
01/04/2023	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
Blended Lg and Fresh Water Application	Process wastewater	44.86	12.96	90.93	480.67	864,000.00 *gal*
Application event totals		44.86	12.96	90.93	480.67	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/30/2023	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
Blended Lg and Fresh Water Application	Process wastewater	44.86	12.96	90.93	480.67	864,000.00 *gal*
Application event totals		44.86	12.96	90.93	480.67	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/02/2023	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
Carsten-North	Ground water	25.09	0.00	0.00	727.88	4,278,000.00 *gal*
Application event totals		25.09	0.00	0.00	727.88	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/06/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Carsten-North	Ground water	25.34	0.00	0.00	735.03	4,320,000.00 *gal*
Application event totals		25.34	0.00	0.00	735.03	

Dairy E - 07/02/2023: Corn, silage

Field name: Dairy E

Crop: Corn, silage — Plant date: 07/02/2023

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

Dairy E - 07/02/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/01/2023	Broadcast/incorporate	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Slurry Manure Application	Process wastewater	142.70	7.72	98.05	563.29	180,000.00 *gal*
Application event totals		142.70	7.72	98.05	563.29	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Carsten-North	Ground water	26.85	0.00	0.00	778.93	4,578,000.00 *gal*
Application event totals		26.85	0.00	0.00	778.93	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/27/2023	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
Lagoon Water Application	Process wastewater	24.03	2.92	29.64	144.20	864,000.00 *gal*
Carsten-North	Ground water	26.74	0.00	0.00	775.86	4,560,000.00 *gal*
Application event totals		50.78	2.92	29.64	920.06	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/12/2023	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
F.I.D. Canal	Surface water	1.22	0.00	0.00	37.57	4,380,000.00 *gal*
Application event totals		1.22	0.00	0.00	37.57	

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
F.I.D. Canal	Surface water	1.20	0.00	0.00	37.05	4,320,000.00 *gal*
Application event totals		1.20	0.00	0.00	37.05	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/05/2023	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
Hay Barn Well	Ground water	21.33	0.00	0.00	660.63	4,260,000.00 *gal*
Application event totals		21.33	0.00	0.00	660.63	

Dairy E - 07/02/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/17/2023	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
F.I.D. Canal	Surface water	1.20	0.00	0.00	36.90	4,302,000.00 *gal*
Application event totals		1.20	0.00	0.00	36.90	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/29/2023	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
Hay Barn Well	Ground water	21.63	0.00	0.00	669.94	4,320,000.00 *gal*
Application event totals		21.63	0.00	0.00	669.94	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/11/2023	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
F.I.D. Canal	Surface water	1.21	0.00	0.00	37.41	4,362,000.00 *gal*
Application event totals		1.21	0.00	0.00	37.41	

Dairy W&S #443 - 12/14/2022: Wheat, silage, soft dough

Field name: Dairy W&S #443

Crop: Wheat, silage, soft dough

Plant date: 12/14/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
11/20/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Blended Lg and Fresh Water Application	Process wastewater	71.92	3.05	98.63	567.79	1,512,000.00 *gal*
Application event totals		71.92	3.05	98.63	567.79	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
02/10/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Blended Lg and Fresh Water Application	Process wastewater	47.11	13.61	95.47	504.71	1,512,000.00 *gal*
Application event totals		47.11	13.61	95.47	504.71	

Dairy W&S #443 - 12/14/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Carsten-North	Ground water	23.06	0.00	0.00	668.88	6,552,000.00 *gal*
Application event totals		23.06	0.00	0.00	668.88	

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
Carsten-North	Ground water	23.35	0.00	0.00	677.45	6,636,000.00 *gal*
Application event totals		23.35	0.00	0.00	677.45	

Dairy W&S #443 - 07/02/2023: Corn, silage

Field name: Dairy W&S #443

Crop: Corn, silage

Plant date: 07/02/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/20/2023	Broadcast/incorporate	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Manure Application	Corral solids	199.14	49.96	180.28	0.00	618.00 *ton*
Application event totals		199.14	49.96	180.28	0.00	

06/14/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Carsten-North	Ground water	25.72	0.00	0.00	746.05	7,308,000.00 *gal*
Application event totals		25.72	0.00	0.00	746.05	

07/26/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
F.I.D. Canal	Surface water	1.16	0.00	0.00	35.88	6,972,000.00 *gal*
Application event totals		1.16	0.00	0.00	35.88	

Dairy W&S #443 - 07/02/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/11/2023	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
F.I.D. Canal	Surface water	1.12	0.00	0.00	34.58	6,720,000.00 *gal*
Application event totals		1.12	0.00	0.00	34.58	

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
F.I.D. Canal	Surface water	1.12	0.00	0.00	34.58	6,720,000.00 *gal*
Application event totals		1.12	0.00	0.00	34.58	

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
Lagoon Water Application	Process wastewater	61.65	2.61	84.54	486.68	1,296,000.00 *gal*
Carsten-North	Ground water	23.35	0.00	0.00	677.45	6,636,000.00 *gal*
Application event totals		85.00	2.61	84.54	1,164.13	

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
F.I.D. Canal	Surface water	1.15	0.00	0.00	35.45	6,888,000.00 *gal*
Application event totals		1.15	0.00	0.00	35.45	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/28/2023	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
F.I.D. Canal	Surface water	1.15	0.00	0.00	35.45	6,888,000.00 *gal*
Application event totals		1.15	0.00	0.00	35.45	

Deis E&W #418 - 11/20/2022: Wheat, silage, soft dough

Field name: Deis E&W #418

Crop: Wheat, silage, soft dough

Plant date: 11/20/2022

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

Deis E&W #418 - 11/20/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
12/28/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Application	Process wastewater	108.15	4.59	148.31	853.83	2,160,000.00 *gal*
Application event totals		108.15	4.59	148.31	853.83	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
01/12/2023	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
Blended Lg and Fresh Water Application	Process wastewater	56.67	16.37	114.86	607.16	1,728,000.00 *gal*
Application event totals		56.67	16.37	114.86	607.16	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
Deis Well	Ground water	4.86	0.00	0.00	290.49	6,636,000.00 *gal*
Application event totals		4.86	0.00	0.00	290.49	

Deis E&W #418 - 06/13/2023: Corn, silage

Field name: Deis E&W #418

Crop: Corn, silage

Plant date: 06/13/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/26/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Deis Well	Ground water	5.35	0.00	0.00	319.91	7,308,000.00 *gal*
Application event totals		5.35	0.00	0.00	319.91	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/01/2023	Broadcast/incorporate	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Slurry Manure Application	Process wastewater	171.24	9.26	117.66	675.95	342,000.00 *gal*
Application event totals		171.24	9.26	117.66	675.95	

Deis E&W #418 - 06/13/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/07/2023	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
F.I.D. Canal	Surface water	1.22	0.00	0.00	37.77	6,972,000.00 *gal*
Application event totals		1.22	0.00	0.00	37.77	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/23/2023	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
F.I.D. Canal	Surface water	1.18	0.00	0.00	36.40	6,720,000.00 *gal*
Application event totals		1.18	0.00	0.00	36.40	

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 Water Application	Process wastewater	43.26	1.83	59.33	341.53	864,000.00 *gal*
Deis Well	Ground water	4.92	0.00	0.00	294.17	6,720,000.00 *gal*
Application event totals		48.18	1.83	59.33	635.70	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/16/2023	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
F.I.D. Canal	Surface water	1.17	0.00	0.00	35.95	6,636,000.00 *gal*
Application event totals		1.17	0.00	0.00	35.95	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
Deis Well	Ground water	4.98	0.00	0.00	297.84	6,804,000.00 *gal*
Application event totals		4.98	0.00	0.00	297.84	

Salwassser #447 - 11/16/2022: Wheat, silage, soft dough

Field name: Salwassser #447

Crop: Wheat, silage, soft dough

Plant date: 11/16/2022

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

Salwassser #447 - 11/16/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
11/15/2022	Broadcast/incorporate	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Manure Application	Corral solids	259.10	78.09	481.18	3,665.58	930.00 *ton*
Application event totals		259.10	78.09	481.18	3,665.58	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
12/12/2022	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
Blended Lg and Fresh Water Application	Process wastewater	79.54	3.37	109.08	627.97	2,592,000.00 *gal*
Application event totals		79.54	3.37	109.08	627.97	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/16/2023	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
Blended Lg and Fresh Water Application	Process wastewater	39.77	1.69	54.54	313.99	1,296,000.00 *gal*
Application event totals		39.77	1.69	54.54	313.99	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/10/2023	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
Carsten-North	Ground water	26.15	0.00	0.00	758.74	11,520,000.00 *gal*
Application event totals		26.15	0.00	0.00	758.74	

Salwassser #447 - 05/27/2023: Corn, silage

Field name: Salwassser #447

Crop: Corn, silage

Plant date: 05/27/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/09/2023	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
Lagoon Water Application	Process wastewater	12.16	5.43	81.71	257.39	1,728,000.00 *gal*
F.I.D. Canal	Surface water	0.90	0.00	0.00	27.73	8,352,000.00 *gal*
Application event totals		13.06	5.43	81.71	285.12	

Salwassser #447 - 05/27/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/20/2023	Broadcast/incorporate	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Manure Application	Corral solids	199.16	49.97	180.30	0.00	958.00 *ton*
Application event totals		199.16	49.97	180.30	0.00	

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
F.I.D. Canal	Surface water	1.16	0.00	0.00	35.70	10,752,000.00 *gal*
Application event totals		1.16	0.00	0.00	35.70	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/06/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Application	Process wastewater	18.61	2.26	22.95	111.64	1,728,000.00 *gal*
F.I.D. Canal	Surface water	1.13	0.00	0.00	34.74	10,464,000.00 *gal*
Application event totals		19.73	2.26	22.95	146.38	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
F.I.D. Canal	Surface water	1.14	0.00	0.00	35.06	10,560,000.00 *gal*
Application event totals		1.14	0.00	0.00	35.06	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
F.I.D. Canal	Surface water	1.13	0.00	0.00	34.74	10,464,000.00 *gal*
Application event totals		1.13	0.00	0.00	34.74	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/11/2023	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
F.I.D. Canal	Surface water	1.13	0.00	0.00	34.74	10,464,000.00 *gal*
Application event totals		1.13	0.00	0.00	34.74	

Salwassser #447 - 05/27/2023: 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
F.I.D. Canal	Surface water	1.15	0.00	0.00	35.38	10,656,000.00 *gal*
Application event totals		1.15	0.00	0.00	35.38	

Scharton #449 - 12/18/2022: Wheat, silage, soft dough

Field name: Scharton #449

Crop: Wheat, silage, soft dough

Plant date: 12/18/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
11/15/2022	Broadcast/incorporate	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Manure Application	Corral solids	259.10	78.09	481.18	3,665.58	370.00 *ton*
Application event totals		259.10	78.09	481.18	3,665.58	

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
Blended Lg and Fresh Water Application	Process wastewater	43.65	12.61	88.47	467.68	864,000.00 *gal*
Application event totals		43.65	12.61	88.47	467.68	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/12/2023	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
Lagoon Water Application	Process wastewater	15.28	6.82	102.69	323.48	864,000.00 *gal*
Hay Barn Well	Ground water	20.75	0.00	0.00	642.78	4,260,000.00 *gal*
Application event totals		36.03	6.82	102.69	966.26	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/18/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Hay Barn Well	Ground water	21.54	0.00	0.00	667.22	4,422,000.00 *gal*
Application event totals		21.54	0.00	0.00	667.22	

Scharton #449 - 06/22/2023: Corn, silage

Field name: Scharton #449

Crop: Corn, silage

Plant date: 06/22/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/19/2023	Broadcast/incorporate	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Manure Application	Corral solids	199.08	49.95	180.24	0.00	381.00 *ton*
Application event totals		199.08	49.95	180.24	0.00	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/08/2023	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
F.I.D. Canal	Surface water	1.17	0.00	0.00	36.05	4,320,000.00 *gal*
Application event totals		1.17	0.00	0.00	36.05	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/16/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
F.I.D. Canal	Surface water	1.16	0.00	0.00	35.90	4,302,000.00 *gal*
Application event totals		1.16	0.00	0.00	35.90	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/01/2023	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
Lagoon Water Application	Process wastewater	23.38	2.85	28.84	140.30	864,000.00 *gal*
F.I.D. Canal	Surface water	1.14	0.00	0.00	35.05	4,200,000.00 *gal*
Application event totals		24.52	2.85	28.84	175.35	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
Lagoon Water Application	Process wastewater	23.38	2.85	28.84	140.30	864,000.00 *gal*
F.I.D. Canal	Surface water	1.09	0.00	0.00	33.55	4,020,000.00 *gal*
Application event totals		24.47	2.85	28.84	173.85	

Scharton #449 - 06/22/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/25/2023	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
F.I.D. Canal	Surface water	1.09	0.00	0.00	33.55	4,020,000.00 *gal*
Application event totals		1.09	0.00	0.00	33.55	

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
F.I.D. Canal	Surface water	1.08	0.00	0.00	33.20	3,978,000.00 *gal*
Application event totals		1.08	0.00	0.00	33.20	

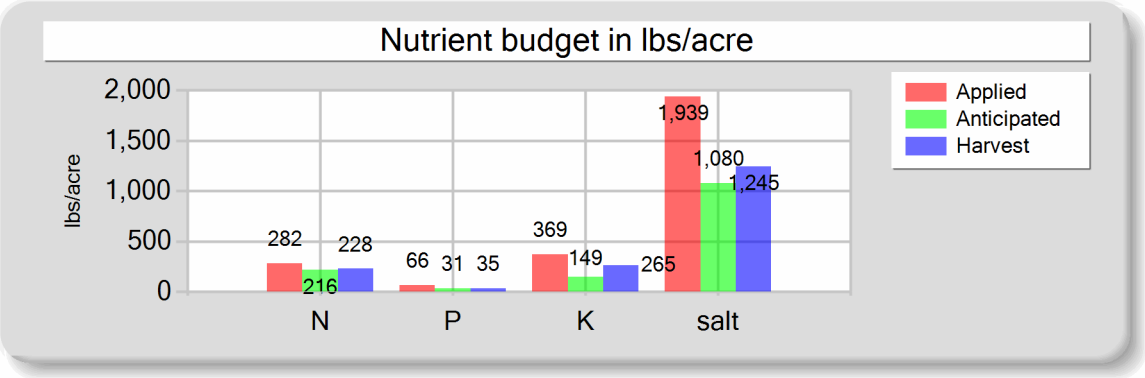
09/18/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Hay Barn Well	Ground water	9.84	0.00	0.00	304.64	2,019,000.00 *gal*
F.I.D. Canal	Surface water	0.55	0.00	0.00	16.85	2,019,000.00 *gal*
Application event totals		10.38	0.00	0.00	321.49	

B. NUTRIENT BUDGET

#402 - 12/16/2022: Wheat, silage, soft dough

Field name: #402 Crop: Wheat, silage, soft dough Plant date: 12/16/2022



	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	159.25	39.95	144.17	0.00
Process wastewater	89.61	25.62	224.71	1,185.24
Fresh water	25.91	0.00	0.00	754.04
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	281.77	65.57	368.89	1,939.28
Anticipated crop nutrient removal	216.00	30.60	149.40	1,080.00
Actual crop nutrient removal	227.96	35.19	264.68	1,245.37
Nutrient balance	53.81	30.39	104.21	693.91
Applied to removed ratio	1.24	1.86	1.39	1.56

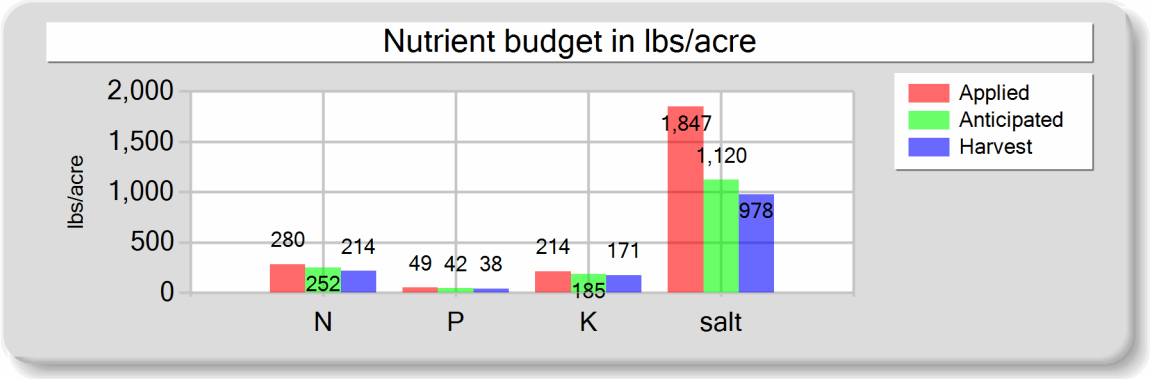
Fresh water applied	
9,048,000.00	*gallons*
333.21	*acre-inches*
8.77	*inches/acre*

Process wastewater applied	
2,304,000.00	*gallons*
84.85	*acre-inches*
2.23	*inches/acre*

Total harvests for the crop	
1	*harvests*

#402 - 06/15/2023: Corn, silage

Field name: #402 Crop: Corn, silage Plant date: 06/15/2023



	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	174.00	43.66	157.53	0.00
Process wastewater	45.54	5.54	56.16	273.22
Fresh water	53.81	0.00	0.00	1,573.99
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	280.35	49.20	213.69	1,847.21
Anticipated crop nutrient removal	252.00	42.00	184.80	1,120.00
Actual crop nutrient removal	213.90	37.89	171.12	977.82
Nutrient balance	66.45	11.30	42.57	869.39
Applied to removed ratio	1.31	1.30	1.25	1.89

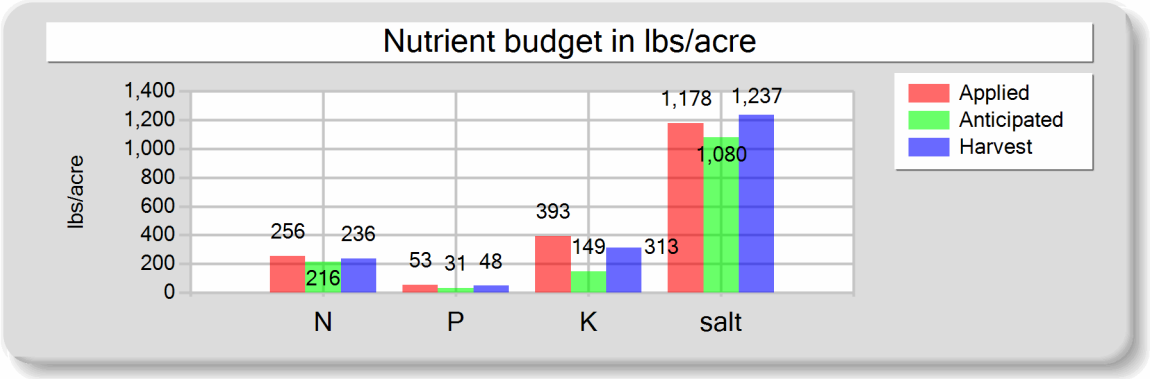
Fresh water applied	
35,022,000.00	*gallons*
1,289.74	*acre-inches*
33.94	*inches/acre*

Process wastewater applied	
1,728,000.00	*gallons*
63.64	*acre-inches*
1.67	*inches/acre*

Total harvests for the crop	
1	*harvests*

#407 - 11/24/2022: Wheat, silage, soft dough

Field name: #407 Crop: Wheat, silage, soft dough Plant date: 11/24/2022



	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	152.02	26.68	202.35	0.00
Process wastewater	95.89	25.97	191.07	1,142.80
Fresh water	1.16	0.00	0.00	35.66
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	256.07	52.64	393.42	1,178.46
Anticipated crop nutrient removal	216.00	30.60	149.40	1,080.00
Actual crop nutrient removal	235.60	47.95	312.94	1,237.50
Nutrient balance	20.47	4.69	80.48	-59.04
Applied to removed ratio	1.09	1.10	1.26	0.95

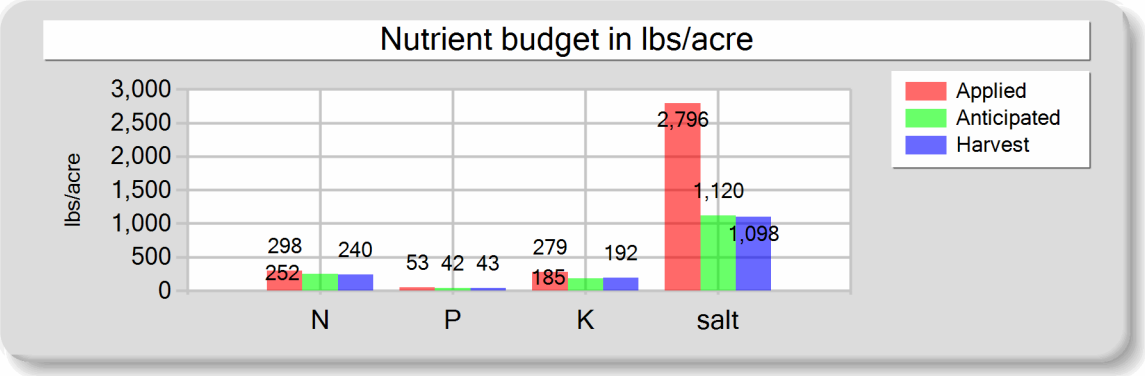
Fresh water applied	
4,620,000.00	*gallons*
170.14	*acre-inches*
4.25	*inches/acre*

Process wastewater applied	
2,160,000.00	*gallons*
79.55	*acre-inches*
1.99	*inches/acre*

Total harvests for the crop	
1	*harvests*

#407 - 06/17/2023: Corn, silage

Field name: #407 Crop: Corn, silage Plant date: 06/17/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	174.00	43.66	157.53	0.00
Process wastewater	35.76	8.94	121.67	429.00
Fresh water	81.22	0.00	0.00	2,366.96
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	297.98	52.60	279.20	2,795.96
Anticipated crop nutrient removal	252.00	42.00	184.80	1,120.00
Actual crop nutrient removal	240.24	42.56	192.19	1,098.24
Nutrient balance	57.74	10.04	87.01	1,697.72
Applied to removed ratio	1.24	1.24	1.45	2.55

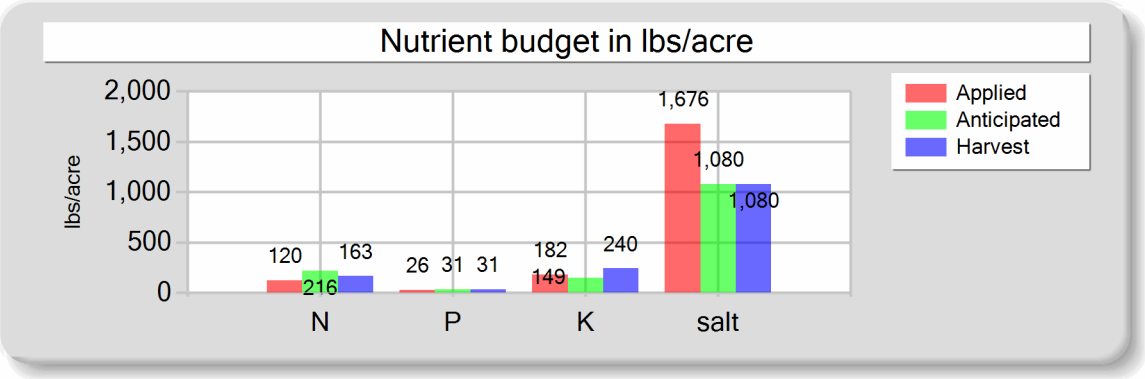
Fresh water applied	
37,632,000.00	*gallons*
1,385.86	*acre-inches*
34.65	*inches/acre*

Process wastewater applied	
1,728,000.00	*gallons*
63.64	*acre-inches*
1.59	*inches/acre*

Total harvests for the crop	
1	*harvests*

Brawley #446 - 12/17/2022: Wheat, silage, soft dough

Field name: Brawley #446 Crop: Wheat, silage, soft dough Plant date: 12/17/2022



	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	89.73	25.92	181.85	961.34
Fresh water	23.07	0.00	0.00	714.60
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	119.80	25.92	181.85	1,675.94
Anticipated crop nutrient removal	216.00	30.60	149.40	1,080.00
Actual crop nutrient removal	162.96	30.66	240.46	1,080.34
Nutrient balance	-43.17	-4.74	-58.60	595.60
Applied to removed ratio	0.74	0.85	0.76	1.55

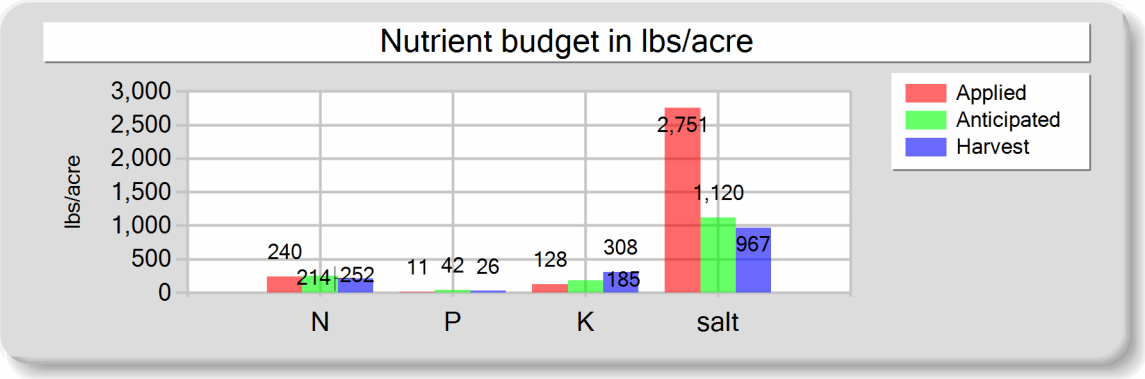
Fresh water applied	
2,304,000.00	*gallons*
84.85	*acre-inches*
4.71	*inches/acre*

Process wastewater applied	
864,000.00	*gallons*
31.82	*acre-inches*
1.77	*inches/acre*

Total harvests for the crop	
1	*harvests*

Brawley #446 - 06/28/2023: Corn, silage

Field name: Brawley #446 Crop: Corn, silage Plant date: 06/28/2023



	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	166.73	10.64	127.70	707.49
Fresh water	66.01	0.00	0.00	2,043.89
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	239.75	10.64	127.70	2,751.38
Anticipated crop nutrient removal	252.00	42.00	184.80	1,120.00
Actual crop nutrient removal	213.69	26.46	307.82	966.70
Nutrient balance	26.05	-15.81	-180.12	1,784.68
Applied to removed ratio	1.12	0.40	0.41	2.85

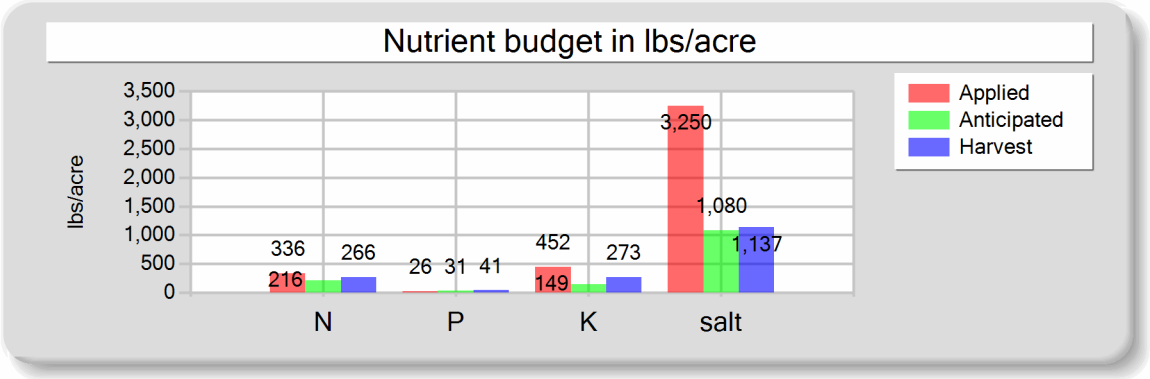
Fresh water applied	
14,616,000.00	*gallons*
538.26	*acre-inches*
29.90	*inches/acre*

Process wastewater applied	
522,000.00	*gallons*
19.22	*acre-inches*
1.07	*inches/acre*

Total harvests for the crop	
1	*harvests*

Carsten E #448 - 12/05/2022: Wheat, silage, soft dough

Field name: Carsten E #448 Crop: Wheat, silage, soft dough Plant date: 12/05/2022



	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	304.67	25.67	451.74	2,551.26
Fresh water	24.07	0.00	0.00	698.28
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	335.74	25.67	451.74	3,249.54
Anticipated crop nutrient removal	216.00	30.60	149.40	1,080.00
Actual crop nutrient removal	265.56	41.24	273.37	1,137.20
Nutrient balance	70.19	-15.56	178.37	2,112.33
Applied to removed ratio	1.26	0.62	1.65	2.86

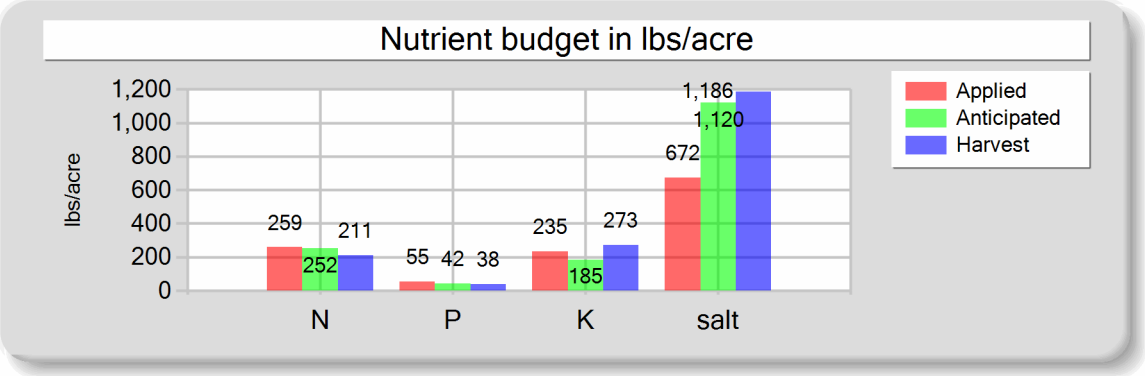
Fresh water applied	
4,446,000.00	*gallons*
163.73	*acre-inches*
4.20	*inches/acre*

Process wastewater applied	
4,536,000.00	*gallons*
167.05	*acre-inches*
4.28	*inches/acre*

Total harvests for the crop	
1	*harvests*

Carsten E #448 - 06/01/2023: Corn, silage

Field name: Carsten E #448 Crop: Corn, silage Plant date: 06/01/2023



	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	199.28	50.00	180.42	0.00
Process wastewater	44.37	5.40	54.72	266.22
Fresh water	8.24	0.00	0.00	406.25
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	258.90	55.40	235.14	672.47
Anticipated crop nutrient removal	252.00	42.00	184.80	1,120.00
Actual crop nutrient removal	211.45	37.94	272.70	1,185.67
Nutrient balance	47.45	17.45	-37.56	-513.20
Applied to removed ratio	1.22	1.46	0.86	0.57

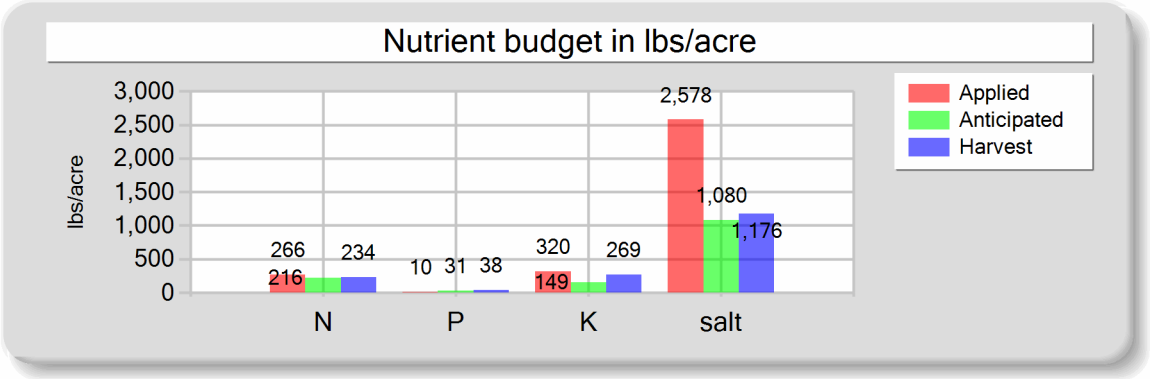
Fresh water applied	
35,022,000.00	*gallons*
1,289.74	*acre-inches*
33.07	*inches/acre*

Process wastewater applied	
1,728,000.00	*gallons*
63.64	*acre-inches*
1.63	*inches/acre*

Total harvests for the crop	
1	*harvests*

Carsten N - 11/18/2022: Wheat, silage, soft dough

Field name: Carsten N Crop: Wheat, silage, soft dough Plant date: 11/18/2022



	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	233.26	9.89	319.87	1,841.49
Fresh water	25.37	0.00	0.00	736.02
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	265.63	9.89	319.87	2,577.51
Anticipated crop nutrient removal	216.00	30.60	149.40	1,080.00
Actual crop nutrient removal	234.17	37.56	268.75	1,175.58
Nutrient balance	31.45	-27.67	51.13	1,401.93
Applied to removed ratio	1.13	0.26	1.19	2.19

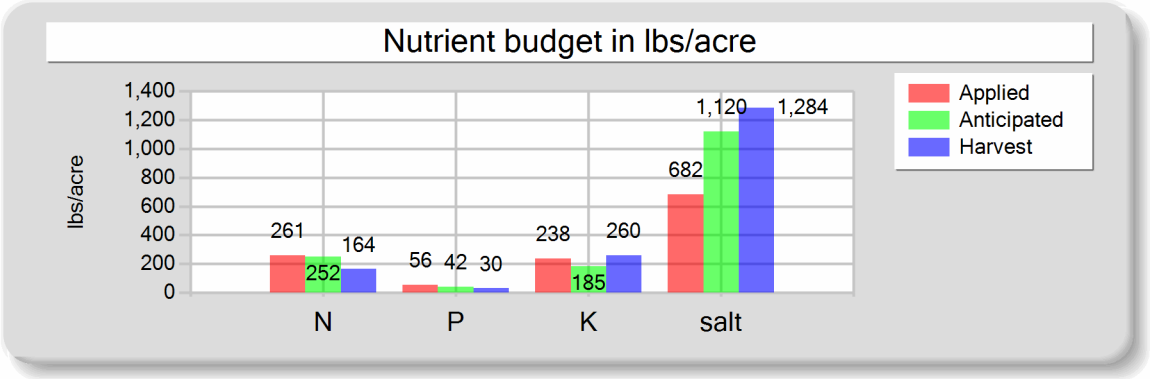
Fresh water applied	
4,446,000.00	*gallons*
163.73	*acre-inches*
4.43	*inches/acre*

Process wastewater applied	
3,024,000.00	*gallons*
111.36	*acre-inches*
3.01	*inches/acre*

Total harvests for the crop	
1	*harvests*

Carsten N - 06/23/2023: Corn, silage

Field name: Carsten N Crop: Corn, silage Plant date: 06/23/2023



	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	199.08	49.95	180.24	0.00
Process wastewater	46.77	5.69	57.68	280.61
Fresh water	7.65	0.00	0.00	401.82
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	260.50	55.64	237.92	682.43
Anticipated crop nutrient removal	252.00	42.00	184.80	1,120.00
Actual crop nutrient removal	163.73	29.64	259.71	1,284.43
Nutrient balance	96.77	26.00	-21.79	-602.00
Applied to removed ratio	1.59	1.88	0.92	0.53

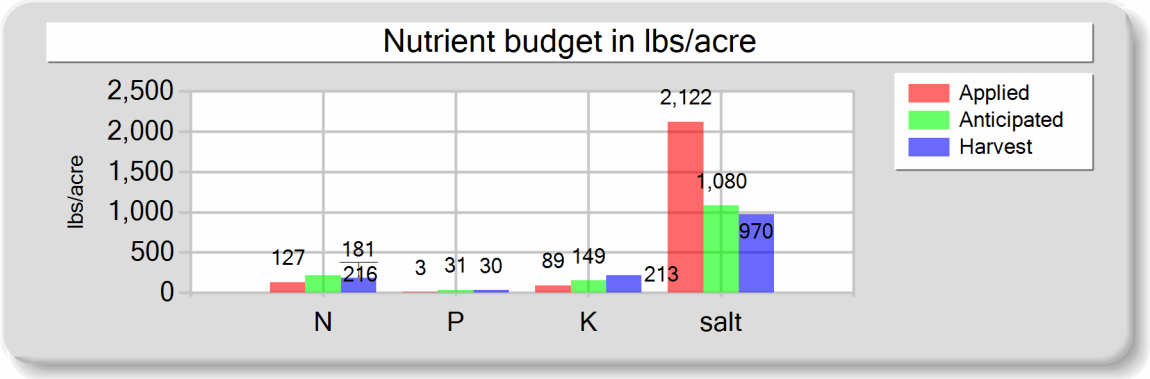
Fresh water applied	
31,278,000.00	*gallons*
1,151.86	*acre-inches*
31.13	*inches/acre*

Process wastewater applied	
1,728,000.00	*gallons*
63.64	*acre-inches*
1.72	*inches/acre*

Total harvests for the crop	
1	*harvests*

Carsten S - 12/10/2022: Wheat, silage, soft dough

Field name: Carsten S Crop: Wheat, silage, soft dough Plant date: 12/10/2022



	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	64.89	2.75	88.99	512.30
Fresh water	55.47	0.00	0.00	1,609.32
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	127.36	2.75	88.99	2,121.62
Anticipated crop nutrient removal	216.00	30.60	149.40	1,080.00
Actual crop nutrient removal	181.46	29.98	213.02	970.43
Nutrient balance	-54.10	-27.23	-124.03	1,151.19
Applied to removed ratio	0.70	0.09	0.42	2.19

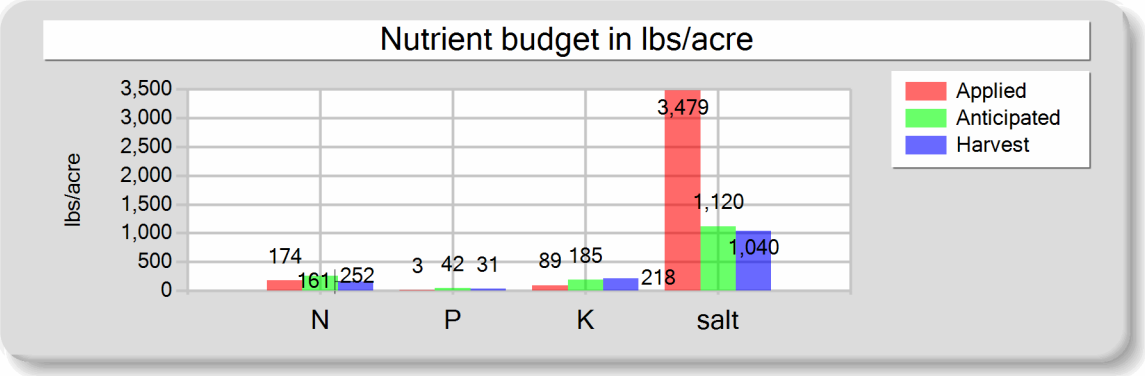
Fresh water applied	
4,992,000.00	*gallons*
183.84	*acre-inches*
9.68	*inches/acre*

Process wastewater applied	
432,000.00	*gallons*
15.91	*acre-inches*
0.84	*inches/acre*

Total harvests for the crop	
1	*harvests*

Carsten S - 07/12/2023: Corn, silage

Field name: Carsten S Crop: Corn, silage Plant date: 07/12/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	64.89	2.75	88.99	512.30
Fresh water	102.10	0.00	0.00	2,966.54
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	173.99	2.75	88.99	3,478.83
Anticipated crop nutrient removal	252.00	42.00	184.80	1,120.00
Actual crop nutrient removal	161.04	30.87	218.07	1,040.03
Nutrient balance	12.95	-28.11	-129.08	2,438.80
Applied to removed ratio	1.08	0.09	0.41	3.34

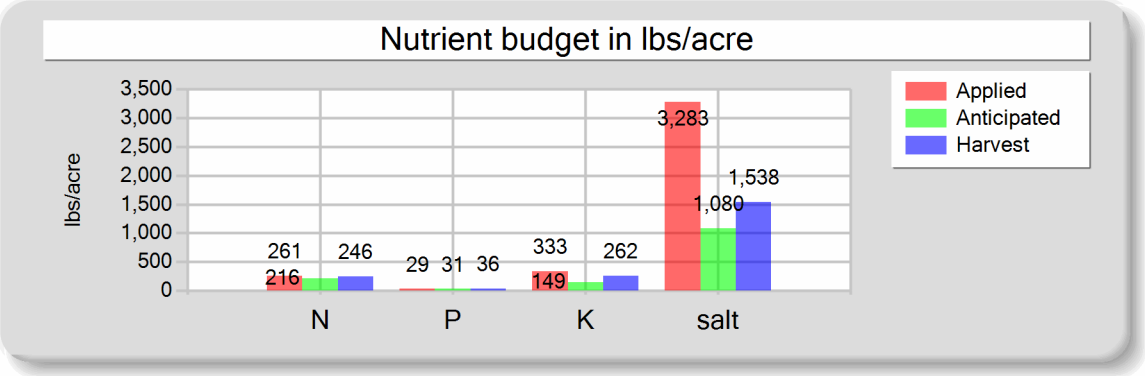
Fresh water applied	
13,572,000.00	*gallons*
499.81	*acre-inches*
26.31	*inches/acre*

Process wastewater applied	
432,000.00	*gallons*
15.91	*acre-inches*
0.84	*inches/acre*

Total harvests for the crop	
1	*harvests*

Carsten W #448 - 12/12/2022: Wheat, silage, soft dough

Field name: Carsten W #448 Crop: Wheat, silage, soft dough Plant date: 12/12/2022



	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	204.05	28.55	332.75	1,838.57
Fresh water	49.78	0.00	0.00	1,444.33
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	260.83	28.55	332.75	3,282.90
Anticipated crop nutrient removal	216.00	30.60	149.40	1,080.00
Actual crop nutrient removal	246.14	35.87	261.96	1,538.36
Nutrient balance	14.69	-7.31	70.79	1,744.54
Applied to removed ratio	1.06	0.80	1.27	2.13

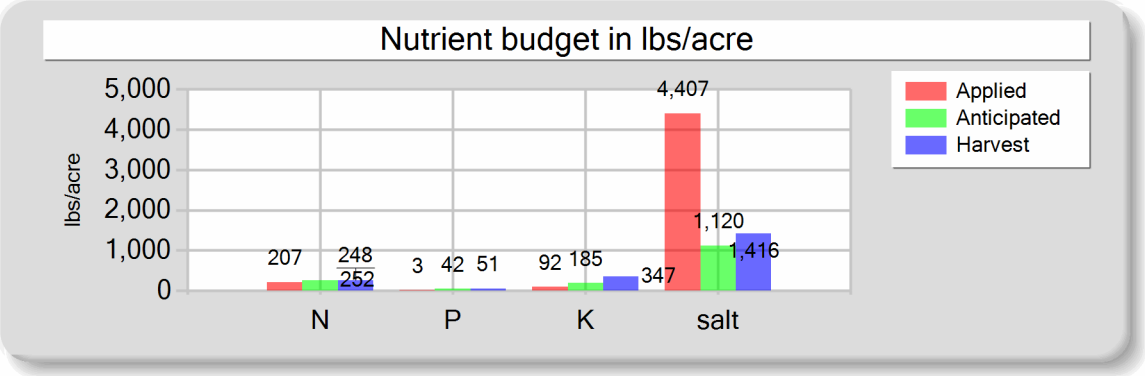
Fresh water applied	
9,432,000.00	*gallons*
347.35	*acre-inches*
8.68	*inches/acre*

Process wastewater applied	
3,456,000.00	*gallons*
127.27	*acre-inches*
3.18	*inches/acre*

Total harvests for the crop	
1	*harvests*

Carsten W #448 - 05/27/2023: Corn, silage

Field name: Carsten W #448 Crop: Corn, silage Plant date: 05/27/2023



	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	66.78	2.83	91.58	527.24
Fresh water	133.56	0.00	0.00	3,879.35
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	207.35	2.83	91.58	4,406.59
Anticipated crop nutrient removal	252.00	42.00	184.80	1,120.00
Actual crop nutrient removal	248.26	51.09	346.74	1,415.69
Nutrient balance	-40.91	-48.26	-255.16	2,990.90
Applied to removed ratio	0.84	0.06	0.26	3.11

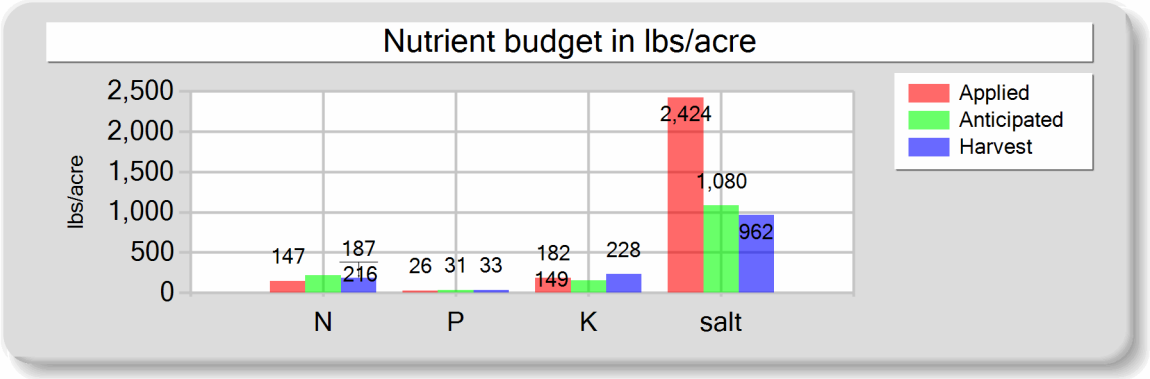
Fresh water applied	
34,632,000.00	*gallons*
1,275.38	*acre-inches*
31.88	*inches/acre*

Process wastewater applied	
936,000.00	*gallons*
34.47	*acre-inches*
0.86	*inches/acre*

Total harvests for the crop	
1	*harvests*

Dairy E - 12/08/2022: Wheat, silage, soft dough

Field name: Dairy E Crop: Wheat, silage, soft dough Plant date: 12/08/2022



	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	89.73	25.92	181.85	961.34
Fresh water	50.42	0.00	0.00	1,462.91
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	147.15	25.92	181.85	2,424.25
Anticipated crop nutrient removal	216.00	30.60	149.40	1,080.00
Actual crop nutrient removal	186.75	33.41	228.38	961.88
Nutrient balance	-39.60	-7.50	-46.52	1,462.38
Applied to removed ratio	0.79	0.78	0.80	2.52

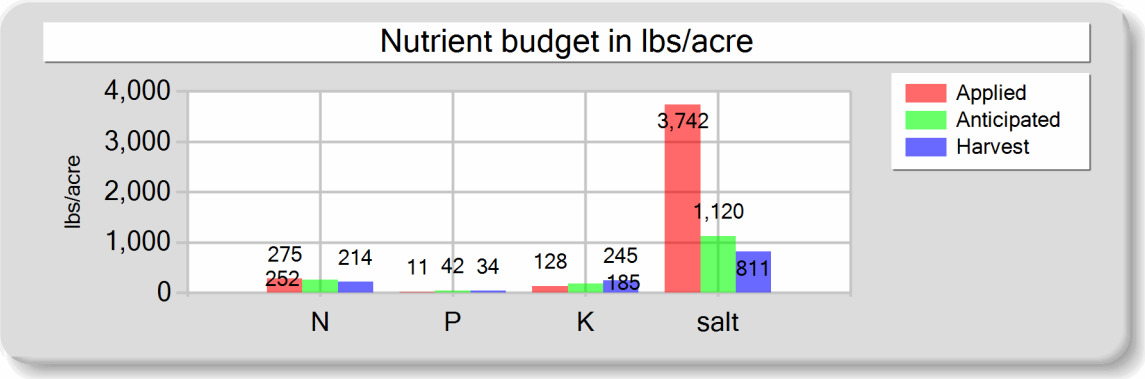
Fresh water applied	
8,598,000.00	*gallons*
316.64	*acre-inches*
8.80	*inches/acre*

Process wastewater applied	
1,728,000.00	*gallons*
63.64	*acre-inches*
1.77	*inches/acre*

Total harvests for the crop	
1	*harvests*

Dairy E - 07/02/2023: Corn, silage

Field name: Dairy E Crop: Corn, silage Plant date: 07/02/2023



	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	166.73	10.64	127.70	707.49
Fresh water	101.38	0.00	0.00	3,034.28
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	275.11	10.64	127.70	3,741.77
Anticipated crop nutrient removal	252.00	42.00	184.80	1,120.00
Actual crop nutrient removal	213.64	33.99	244.83	810.89
Nutrient balance	61.48	-23.35	-117.13	2,930.88
Applied to removed ratio	1.29	0.31	0.52	4.61

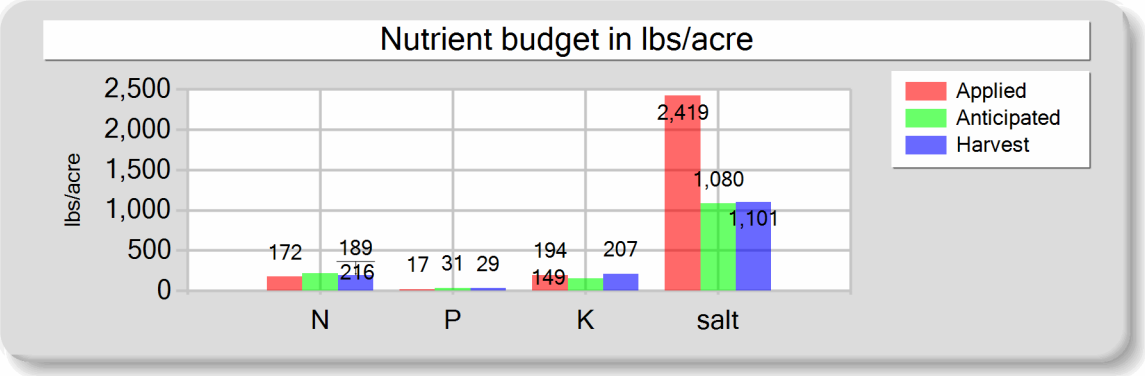
Fresh water applied	
35,082,000.00	*gallons*
1,291.95	*acre-inches*
35.89	*inches/acre*

Process wastewater applied	
1,044,000.00	*gallons*
38.45	*acre-inches*
1.07	*inches/acre*

Total harvests for the crop	
1	*harvests*

Dairy W&S #443 - 12/14/2022: Wheat, silage, soft dough

Field name: Dairy W&S #443 Crop: Wheat, silage, soft dough Plant date: 12/14/2022



	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	119.03	16.66	194.10	1,072.50
Fresh water	46.41	0.00	0.00	1,346.33
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	172.43	16.66	194.10	2,418.82
Anticipated crop nutrient removal	216.00	30.60	149.40	1,080.00
Actual crop nutrient removal	188.78	29.50	207.13	1,101.22
Nutrient balance	-16.35	-12.84	-13.03	1,317.60
Applied to removed ratio	0.91	0.56	0.94	2.20

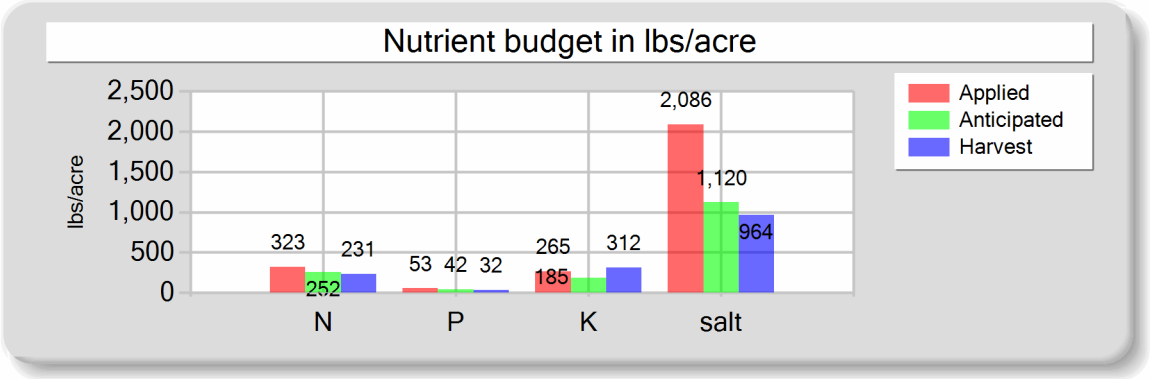
Fresh water applied	
13,188,000.00	*gallons*
485.67	*acre-inches*
8.09	*inches/acre*

Process wastewater applied	
3,024,000.00	*gallons*
111.36	*acre-inches*
1.86	*inches/acre*

Total harvests for the crop	
1	*harvests*

Dairy W&S #443 - 07/02/2023: Corn, silage

Field name: Dairy W&S #443 Crop: Corn, silage Plant date: 07/02/2023



	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	199.14	49.96	180.28	0.00
Process wastewater	61.65	2.61	84.54	486.68
Fresh water	54.77	0.00	0.00	1,599.44
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	322.55	52.57	264.82	2,086.12
Anticipated crop nutrient removal	252.00	42.00	184.80	1,120.00
Actual crop nutrient removal	231.05	32.29	312.14	963.96
Nutrient balance	91.51	20.29	-47.32	1,122.16
Applied to removed ratio	1.40	1.63	0.85	2.16

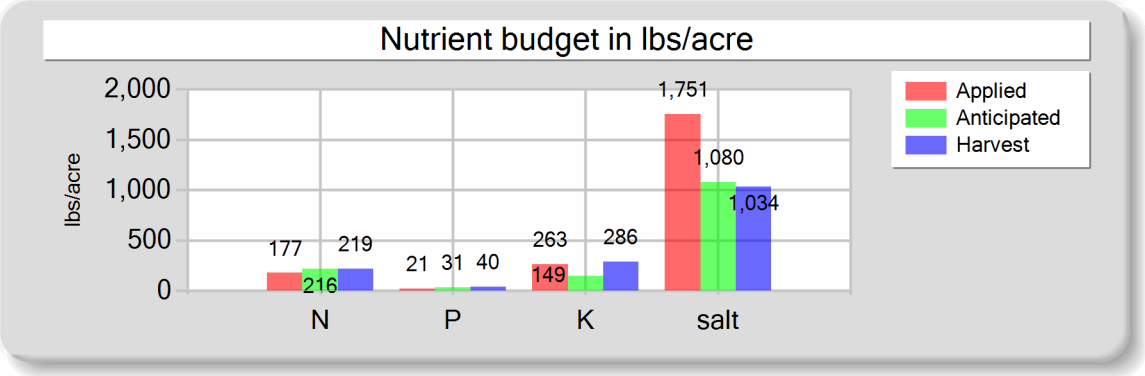
Fresh water applied	
48,132,000.00	*gallons*
1,772.54	*acre-inches*
29.54	*inches/acre*

Process wastewater applied	
1,296,000.00	*gallons*
47.73	*acre-inches*
0.80	*inches/acre*

Total harvests for the crop	
1	*harvests*

Deis E&W #418 - 11/20/2022: Wheat, silage, soft dough

Field name: Deis E&W #418 Crop: Wheat, silage, soft dough Plant date: 11/20/2022



	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	164.82	20.95	263.17	1,460.99
Fresh water	4.86	0.00	0.00	290.49
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	176.68	20.95	263.17	1,751.48
Anticipated crop nutrient removal	216.00	30.60	149.40	1,080.00
Actual crop nutrient removal	218.76	40.24	286.00	1,033.61
Nutrient balance	-42.09	-19.29	-22.83	717.86
Applied to removed ratio	0.81	0.52	0.92	1.69

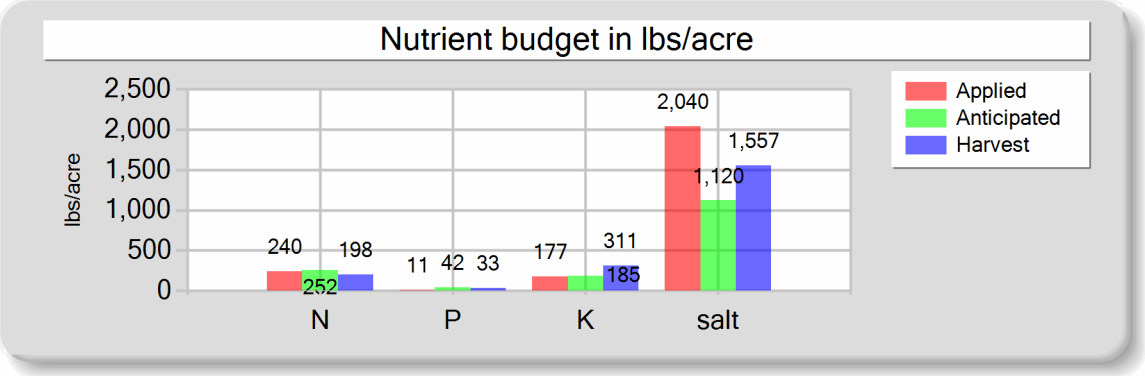
Fresh water applied	
6,636,000.00	*gallons*
244.38	*acre-inches*
4.29	*inches/acre*

Process wastewater applied	
3,888,000.00	*gallons*
143.18	*acre-inches*
2.51	*inches/acre*

Total harvests for the crop	
1	*harvests*

Deis E&W #418 - 06/13/2023: Corn, silage

Field name: Deis E&W #418 Crop: Corn, silage Plant date: 06/13/2023



	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	214.50	11.10	176.99	1,017.48
Fresh water	18.82	0.00	0.00	1,022.03
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	240.32	11.10	176.99	2,039.50
Anticipated crop nutrient removal	252.00	42.00	184.80	1,120.00
Actual crop nutrient removal	197.90	32.89	311.40	1,557.02
Nutrient balance	42.42	-21.79	-134.41	482.48
Applied to removed ratio	1.21	0.34	0.57	1.31

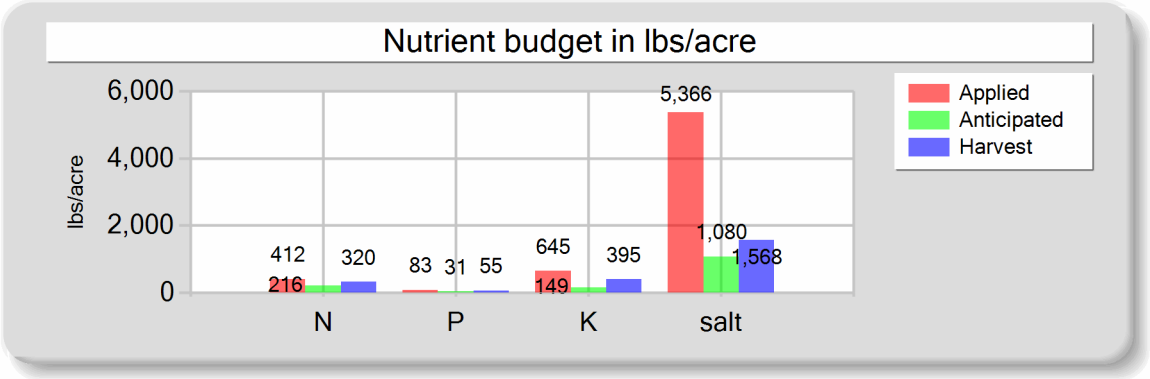
Fresh water applied	
41,160,000.00	*gallons*
1,515.78	*acre-inches*
26.59	*inches/acre*

Process wastewater applied	
1,206,000.00	*gallons*
44.41	*acre-inches*
0.78	*inches/acre*

Total harvests for the crop	
1	*harvests*

Salwassser #447 - 11/16/2022: Wheat, silage, soft dough

Field name: Salwassser #447 Crop: Wheat, silage, soft dough Plant date: 11/16/2022



	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	259.10	78.09	481.18	3,665.58
Process wastewater	119.32	5.06	163.62	941.96
Fresh water	26.15	0.00	0.00	758.74
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	411.57	83.15	644.80	5,366.28
Anticipated crop nutrient removal	216.00	30.60	149.40	1,080.00
Actual crop nutrient removal	320.18	55.41	394.67	1,568.23
Nutrient balance	91.39	27.74	250.13	3,798.05
Applied to removed ratio	1.29	1.50	1.63	3.42

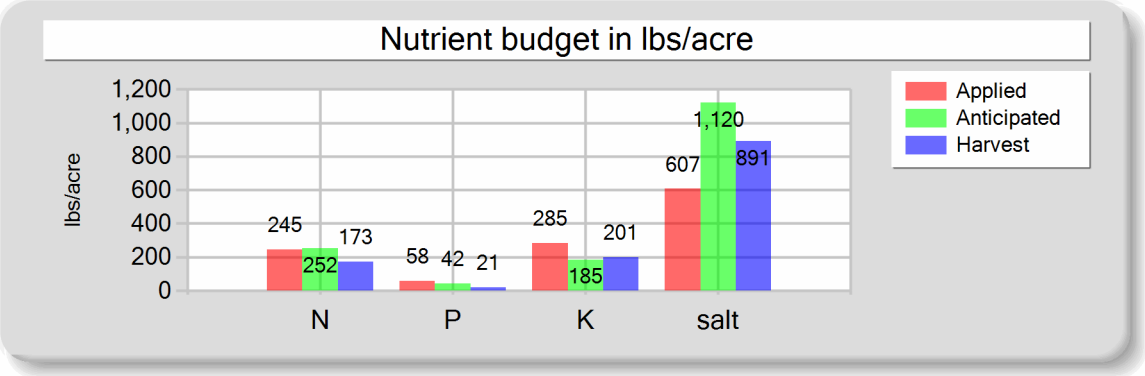
Fresh water applied	
11,520,000.00	*gallons*
424.24	*acre-inches*
4.56	*inches/acre*

Process wastewater applied	
3,888,000.00	*gallons*
143.18	*acre-inches*
1.54	*inches/acre*

Total harvests for the crop	
1	*harvests*

Salwassser #447 - 05/27/2023: Corn, silage

Field name: Salwassser #447 Crop: Corn, silage Plant date: 05/27/2023



	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	199.16	49.97	180.30	0.00
Process wastewater	30.76	7.69	104.66	369.03
Fresh water	7.72	0.00	0.00	238.09
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	244.64	57.66	284.96	607.12
Anticipated crop nutrient removal	252.00	42.00	184.80	1,120.00
Actual crop nutrient removal	172.56	20.51	200.84	891.07
Nutrient balance	72.09	37.15	84.12	-283.95
Applied to removed ratio	1.42	2.81	1.42	0.68

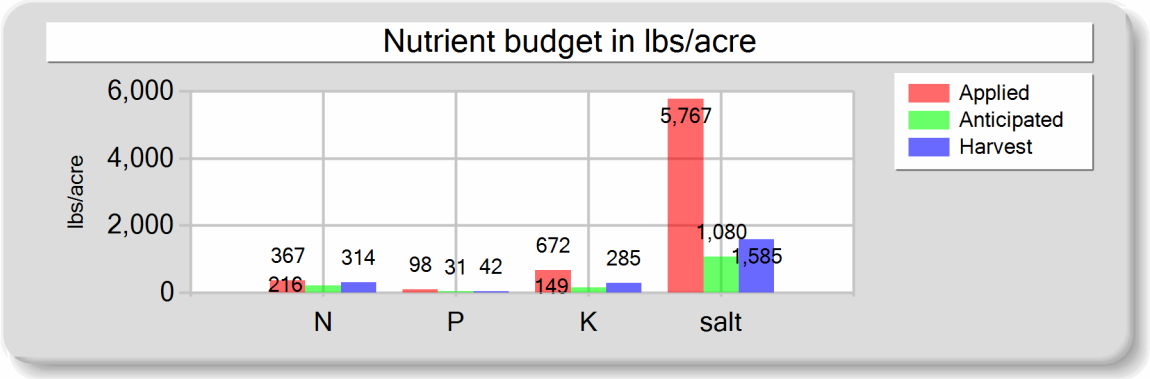
Fresh water applied	
71,712,000.00	*gallons*
2,640.91	*acre-inches*
28.40	*inches/acre*

Process wastewater applied	
3,456,000.00	*gallons*
127.27	*acre-inches*
1.37	*inches/acre*

Total harvests for the crop	
1	*harvests*

Scharton #449 - 12/18/2022: Wheat, silage, soft dough

Field name: Scharton #449 Crop: Wheat, silage, soft dough Plant date: 12/18/2022



	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	259.10	78.09	481.18	3,665.58
Process wastewater	58.93	19.43	191.16	791.16
Fresh water	42.30	0.00	0.00	1,310.00
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	367.32	97.52	672.35	5,766.74
Anticipated crop nutrient removal	216.00	30.60	149.40	1,080.00
Actual crop nutrient removal	314.12	42.02	284.99	1,585.15
Nutrient balance	53.20	55.49	387.35	4,181.59
Applied to removed ratio	1.17	2.32	2.36	3.64

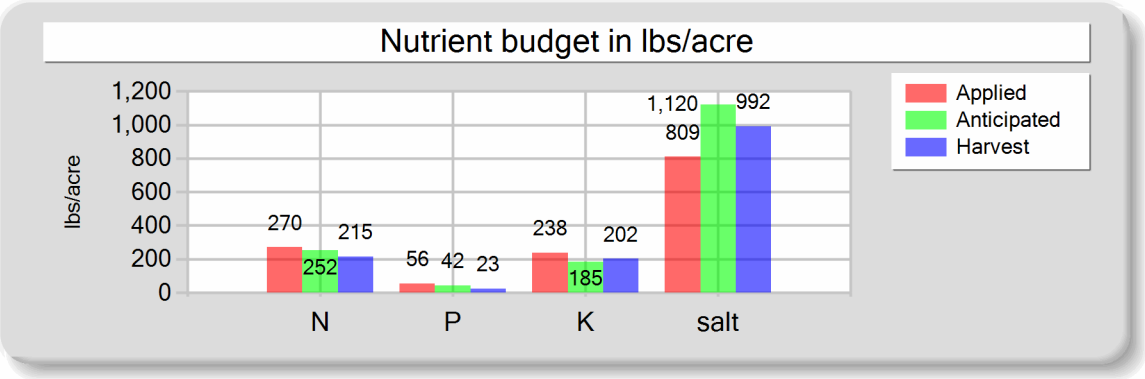
Fresh water applied	
8,682,000.00	*gallons*
319.73	*acre-inches*
8.64	*inches/acre*

Process wastewater applied	
1,728,000.00	*gallons*
63.64	*acre-inches*
1.72	*inches/acre*

Total harvests for the crop	
1	*harvests*

Scharton #449 - 06/22/2023: Corn, silage

Field name: Scharton #449 Crop: Corn, silage Plant date: 06/22/2023



	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	199.08	49.95	180.24	0.00
Process wastewater	46.77	5.69	57.68	280.61
Fresh water	17.11	0.00	0.00	528.78
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	269.96	55.64	237.92	809.39
Anticipated crop nutrient removal	252.00	42.00	184.80	1,120.00
Actual crop nutrient removal	215.16	22.86	201.72	991.77
Nutrient balance	54.79	32.78	36.20	-182.39
Applied to removed ratio	1.25	2.43	1.18	0.82

Fresh water applied	
28,878,000.00	*gallons*
1,063.48	*acre-inches*
28.74	*inches/acre*

Process wastewater applied	
1,728,000.00	*gallons*
63.64	*acre-inches*
1.72	*inches/acre*

Total harvests for the crop	
1	*harvests*

NUTRIENT ANALYSES

A. MANURE ANALYSES

Corral solids

Sample and source description: Corral solids

Sample date: 10/26/2022 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 38.8 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,100.00	2,650.00	20,100.00							0.00
DL	1,000.00	1,000.00	1,000.00							0.10

Corral solids - 2022

Sample and source description: Corral solids - 2022

Sample date: 11/03/2022 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 40.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	21,700.00	6,540.00	40,300.00							30.70
DL	1,000.00	1,000.00	1,000.00							0.10

Corral solids

Sample and source description: Corral solids

Sample date: 06/01/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 42.8 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	16,900.00	4,240.00	15,300.00							0.00
DL	1,000.00	1,000.00	1,000.00							0.10

LG Solids

Sample and source description: LG Solids

Sample date: 10/26/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 49.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,200.00	2,680.00	9,600.00							0.00
DL	1,000.00	1,000.00	1,000.00							0.10

B. PROCESS WASTEWATER ANALYSES

Pond-South-4

Sample and source description: Pond-South-4

Sample date: 11/10/2022 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	196.00	137.00	0.00	0.00	47.00	379.00								3,370.00	2,740
DL	0.50	0.50	0.50	0.50	0.50	2.00								1.00	10

Pond-South-1

Sample and source description: Pond-South-1

Sample date: 03/16/2023 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	224.00	123.00	0.00	0.00	64.70	454.00								3,120.00	2,400
DL	0.50	0.50	0.50	0.50	0.50	2.00								1.00	10

Slurry Application

Sample and source description: Slurry Application

Sample date: 06/01/2023 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	3,420.00	574.00	0.00	0.00	185.00	2,350.00								10,200.00	13,500
DL	0.50	0.50	0.50	0.50	0.50	2.00								1.00	10

Pond-South-2

Sample and source description: Pond-South-2

Sample date: 06/08/2023 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	78.40	36.40	0.00	0.00	35.00	527.00								2,590.00	1,660
DL	0.50	0.50	0.50	0.50	0.50	2.00								1.00	10

Pond-South-3

Sample and source description: Pond-South-3

Sample date: 08/17/2023 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	120.00	89.60	0.00	0.00	14.60	148.00								1,660.00	720
DL	0.50	0.50	0.50	0.50	0.50	2.00								1.00	10

Lg-South-4

Sample and source description: Lg-South-4

Sample date: 10/26/2023 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	342.00	269.00	0.00	0.00	14.50	469.00								4,630.00	2,700
DL	0.50	0.50	0.50	0.50	0.50	2.00								1.00	10

C. FRESH WATER ANALYSES

#1-Dom

#1-Dom

Sample description: #1-Dom

Sample date: 10/26/2023 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	5.41	0.00	5.41								397.00	254
DL	0.50	0.50	0.50								1.00	10

#2-Dom

#2-Dom

Sample description: #2-Dom

Sample date: 10/26/2023 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	5.15	0.00	5.15								399.00	255
DL	0.50	0.50	0.50								1.00	10

#3515-Dom

#3515-Dom

Sample description: #3515-Dom

Sample date: 10/26/2023 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	8.28	0.00	8.28								574.00	367
DL	0.50	0.50	0.50								1.00	10

#3-Dom

#3-Dom

Sample description: #3-Dom

Sample date: 10/26/2023 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	14.00	0.00	14.00								886.00	567
DL	0.50	0.50	0.50								1.00	10

#4-Dom

#4-Dom

Sample description: #4-Dom

Sample date: 10/26/2023 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	4.32	0.00	4.32								311.00	199
DL	0.50	0.50	0.50								1.00	10

#7762-Dom

#7762-Dom

Sample description: #7762-Dom

Sample date: 10/26/2023 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	23.70	0.00	23.70								854.00	547
DL	0.50	0.50	0.50								1.00	10

#8626-Dom

#8626-Dom

#8626-Dom

Sample description: #8626-Dom

Sample date: 10/26/2023 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	6.66	0.00	6.66								476.00	304
DL	0.50	0.50	0.50								1.00	10

Carsten-North

Casten-N

Sample description: Casten-N

Sample 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 (µmhos/cm)	TDS (mg/L)
Value	25.30	0.00	25.30								1,150.00	734
DL	0.50	0.50	0.50								1.00	10

Deis Well

Deis

Sample description: Deis

Sample date: 08/03/2022 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	5.00	0.00	5.00								467.00	299
DL	0.50	0.50	0.50								1.00	10

F.I.D. Canal

F.I.D. Canal

FID Canal

Sample description: FID Canal

Sample 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 (µmhos/cm)	TDS (mg/L)
Value	1.20	0.00	1.20								100.00	37
DL	0.50	0.50	0.50								1.00	10

Hay Barn Well

Hay Barn

Sample description: Hay Barn

Sample date: 08/03/2022 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	21.60	0.00	21.60								1,050.00	669
DL	0.50	0.50	0.50								1.00	10

Hospital Well

Hospital

Sample description: Hospital

Sample 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 (µmhos/cm)	TDS (mg/L)
Value	0.80	0.00	0.80								165.00	106
DL	0.50	0.50	0.50								1.00	10

D. SOIL ANALYSES

No soil analyses entered.

E. PLANT TISSUE ANALYSES

#402 - 12/16/2022: Wheat, silage, soft dough

Winter Forage

Sample and source description: Winter Forage

Sample date: 05/30/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 61.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,900.00	2,300.00	17,300.00		8.14
DL	1,000.00	1,000.00	1,000.00		0.10

#402 - 06/15/2023: Corn, silage

Corn Silages-Renae

Sample and source description: Corn Silages-Renae

Sample date: 09/11/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 65.8 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	10,800.00	1,400.00	13,200.00		6.80
DL	1,000.00	1,000.00	1,000.00		0.10

Corn Silages-West

Sample and source description: Corn Silages-West

Sample date: 10/06/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 71.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,800.00	5,100.00	3,570.00		6.30
DL	1,000.00	1,000.00	1,000.00		0.10

#407 - 11/24/2022: Wheat, silage, soft dough

Winter Forage

Sample and source description: Winter Forage

Sample date: 05/08/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 67.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	19,800.00	4,030.00	26,300.00		10.40
DL	1,000.00	1,000.00	1,000.00		0.10

Winter Forage

Sample and source description: Winter Forage

Sample date: 05/30/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 49.8 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,400.00	2,180.00	17,900.00		6.49
DL	1,000.00	1,000.00	1,000.00		0.10

#407 - 06/17/2023: Corn, silage

Corn Silages-East

Sample and source description: Corn Silages-East

Sample date: 10/06/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 71.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,000.00	2,480.00	11,200.00		6.40
DL	1,000.00	1,000.00	1,000.00		0.10

Brawley #446 - 12/17/2022: Wheat, silage, soft dough

Brawley #446 - 12/17/2022: Wheat, silage, soft dough

Winter Forage

Sample and source description: Winter Forage

Sample date: 05/30/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 69.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,300.00	2,690.00	21,100.00		9.48
DL	1,000.00	1,000.00	1,000.00		0.10

Brawley #446 - 06/28/2023: Corn, silage

Corn Silages-West

Sample and source description: Corn Silages-West

Sample date: 10/20/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 76.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	16,800.00	2,080.00	24,200.00		7.60
DL	1,000.00	1,000.00	1,000.00		0.10

Carsten E #448 - 12/05/2022: Wheat, silage, soft dough

Winter Forage

Sample and source description: Winter Forage

Sample date: 05/24/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 69.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,000.00	2,640.00	17,500.00		7.28
DL	1,000.00	1,000.00	1,000.00		0.10

Carsten E #448 - 06/01/2023: Corn, silage

Corn Silages

Sample and source description: Corn Silages

Sample date: 10/05/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 71.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	10,700.00	1,920.00	13,800.00		6.00
DL	1,000.00	1,000.00	1,000.00		0.10

Carsten N - 11/18/2022: Wheat, silage, soft dough

Winter Forage

Sample and source description: Winter Forage

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

Moisture: 64.8 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,900.00	2,390.00	17,100.00		7.48
DL	1,000.00	1,000.00	1,000.00		0.10

Carsten N - 06/23/2023: Corn, silage

Corn Silages

Sample and source description: Corn Silages

Sample date: 09/14/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 74.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	11,600.00	2,100.00	18,400.00		9.10
DL	1,000.00	1,000.00	1,000.00		0.10

Carsten S - 12/10/2022: Wheat, silage, soft dough

Winter Forage

Sample and source description: Winter Forage

Sample date: 05/30/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 68.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	16,100.00	2,660.00	18,900.00		8.61
DL	1,000.00	1,000.00	1,000.00		0.10

Carsten S - 07/12/2023: Corn, silage

Corn Silages

Sample and source description: Corn Silages

Sample date: 10/11/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 68.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	9,600.00	1,840.00	13,000.00		6.20
DL	1,000.00	1,000.00	1,000.00		0.10

Carsten W #448 - 12/12/2022: Wheat, silage, soft dough

Winter Forage

Sample and source description: Winter Forage

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

Moisture: 60.8 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,000.00	2,040.00	14,900.00		8.75
DL	1,000.00	1,000.00	1,000.00		0.10

Carsten W #448 - 05/27/2023: Corn, silage

Corn Silages

Sample and source description: Corn Silages

Sample date: 09/24/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 69.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,100.00	2,490.00	16,900.00		6.90
DL	1,000.00	1,000.00	1,000.00		0.10

Corn Silages

Sample and source description: Corn Silages

Sample date: 10/11/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 72.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	11,400.00	2,670.00	17,400.00		7.30
DL	1,000.00	1,000.00	1,000.00		0.10

Dairy E - 12/08/2022: Wheat, silage, soft dough

Winter Forage

Sample and source description: Winter Forage

Sample date: 05/24/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 70.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	16,600.00	2,970.00	20,300.00		8.55
DL	1,000.00	1,000.00	1,000.00		0.10

Dairy E - 07/02/2023: Corn, silage

Dairy E - 07/02/2023: Corn, silage

Corn Silages

Sample and source description: Corn Silages

Sample date: 10/21/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 72.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,700.00	2,180.00	15,700.00		5.20
DL	1,000.00	1,000.00	1,000.00		0.10

Dairy W&S #443 - 12/14/2022: Wheat, silage, soft dough

Winter Forage-East

Sample and source description: Winter Forage-East

Sample date: 06/01/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 64.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,400.00	2,250.00	15,800.00		8.40
DL	1,000.00	1,000.00	1,000.00		0.10

Winter Forage-West

Sample and source description: Winter Forage-West

Sample date: 06/01/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 63.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,500.00	2,170.00	13,000.00		7.36
DL	1,000.00	1,000.00	1,000.00		0.10

Dairy W&S #443 - 07/02/2023: Corn, silage

Dairy W&S #443 - 07/02/2023: Corn, silage

Corn Silages-South

Sample and source description: Corn Silages-South

Sample date: 10/20/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 71.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,100.00	2,110.00	20,400.00		6.30
DL	1,000.00	1,000.00	1,000.00		0.10

Deis E&W #418 - 11/20/2022: Wheat, silage, soft dough

Winter Forage -East

Sample and source description: Winter Forage -East

Sample date: 05/04/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 72.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	21,700.00	4,820.00	35,700.00		11.60
DL	1,000.00	1,000.00	1,000.00		0.10

Winter Forage-West

Sample and source description: Winter Forage-West

Sample date: 05/04/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 71.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	21,800.00	4,010.00	28,500.00		10.30
DL	1,000.00	1,000.00	1,000.00		0.10

Deis E&W #418 - 11/20/2022: Wheat, silage, soft dough

Corn Silages-East

Sample and source description: Corn Silages-East

Sample date: 09/11/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 70.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,800.00	2,000.00	18,100.00		9.00
DL	1,000.00	1,000.00	1,000.00		0.10

Deis E&W #418 - 06/13/2023: Corn, silage

Corn Silages-West

Sample and source description: Corn Silages-West

Sample date: 09/11/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 74.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,600.00	2,260.00	21,400.00		10.70
DL	1,000.00	1,000.00	1,000.00		0.10

Salwassser #447 - 11/16/2022: Wheat, silage, soft dough

Winter Forage

Sample and source description: Winter Forage

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

Moisture: 70.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	24,500.00	4,240.00	30,200.00		12.00
DL	1,000.00	1,000.00	1,000.00		0.10

Salwassser #447 - 11/16/2022: Wheat, silage, soft dough

Winter Forage

Sample and source description: Winter Forage

Sample date: 05/24/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 63.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,600.00	2,140.00	15,100.00		10.10
DL	1,000.00	1,000.00	1,000.00		0.10

Winter Forage-North

Sample and source description: Winter Forage-North

Sample date: 05/25/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 71.8 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	16,800.00	2,730.00	18,800.00		10.00
DL	1,000.00	1,000.00	1,000.00		0.10

Salwassser #447 - 05/27/2023: Corn, silage

Corn Silages-East

Sample and source description: Corn Silages-East

Sample date: 09/14/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 72.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,600.00	2,530.00	18,800.00		3.50
DL	1,000.00	1,000.00	1,000.00		0.10

Salwassser #447 - 05/27/2023: Corn, silage

Corn Silages-South

Sample and source description: Corn Silages-South

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

Moisture: 66.8 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,200.00	1,450.00	14,200.00		6.30
DL	1,000.00	1,000.00	1,000.00		0.10

Corn Silages-South

Sample and source description: Corn Silages-South

Sample date: 10/12/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 69.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	11,300.00	2,700.00	22,000.00		6.80
DL	1,000.00	1,000.00	1,000.00		0.10

Scharton #449 - 12/18/2022: Wheat, silage, soft dough

Winter Forage

Sample and source description: Winter Forage

Sample date: 06/02/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 62.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,100.00	2,020.00	13,700.00		7.62
DL	1,000.00	1,000.00	1,000.00		0.10

Scharton #449 - 06/22/2023: Corn, silage

Scharton #449 - 06/22/2023: Corn, silage

Corn Silages

Sample and source description: Corn Silages

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

Moisture: 70.8 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,800.00	1,360.00	12,000.00		5.90
DL	1,000.00	1,000.00	1,000.00		0.10

F. SUBSURFACE (TILE) DRAINAGE ANALYSES

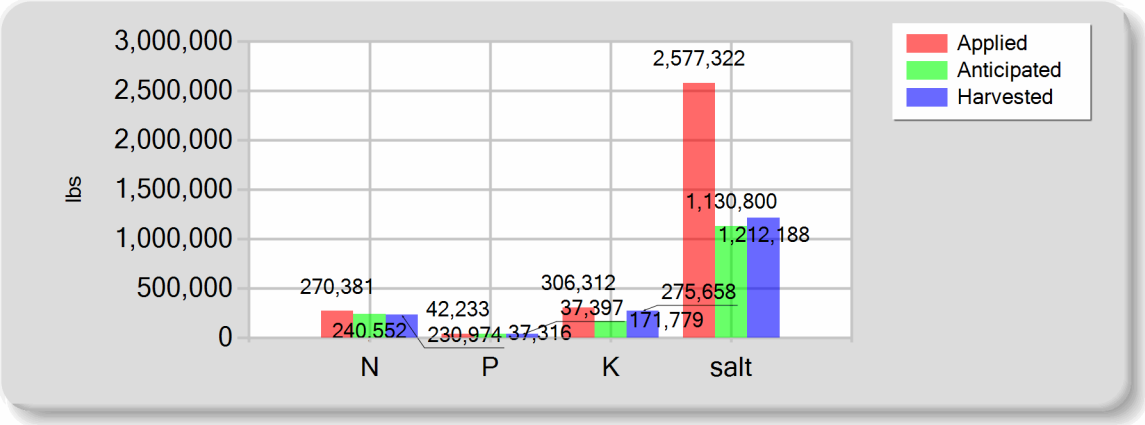
No subsurface (tile) drainage analyses entered.

NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

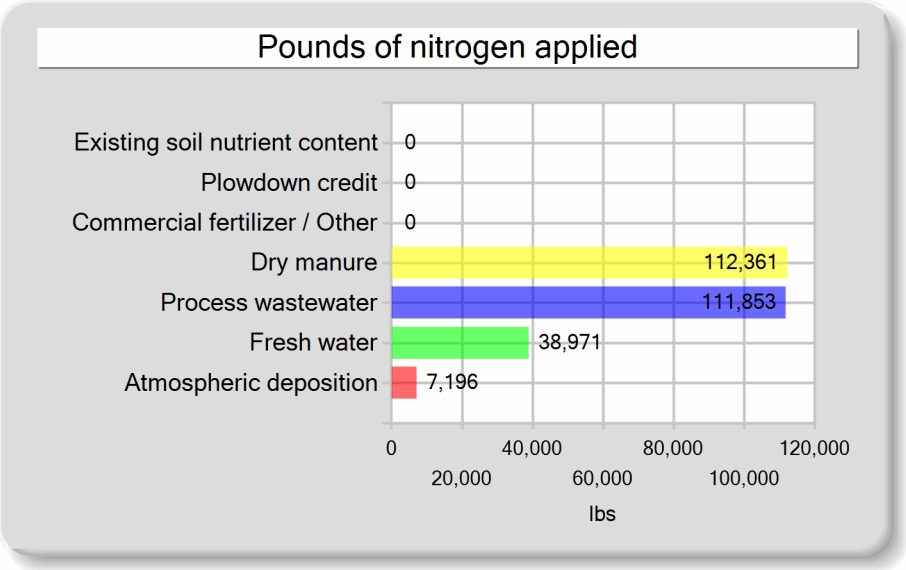
A. SUMMARY OF NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

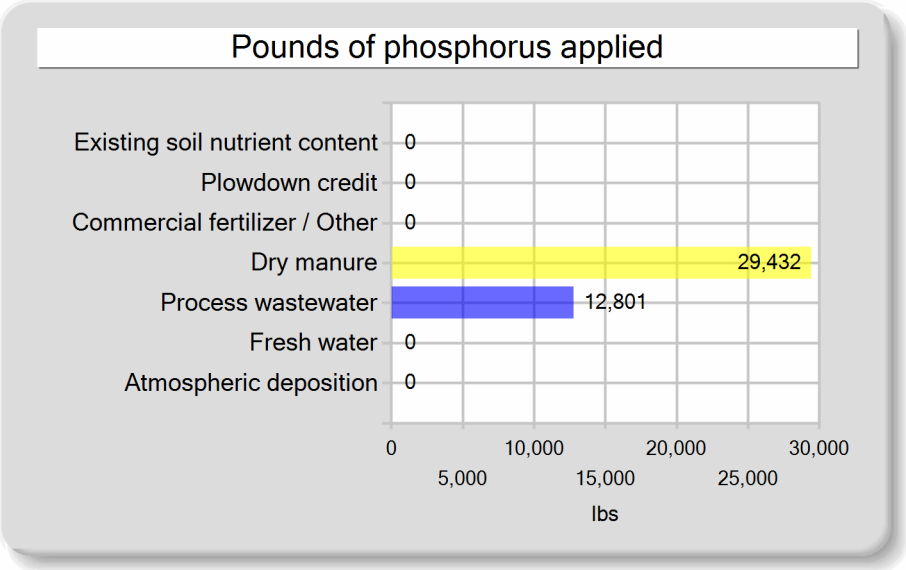
	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	112,361.12	29,432.39	136,372.37	476,525.40
Process wastewater	111,852.61	12,800.84	169,939.78	907,310.46
Fresh water	38,971.39	0.00	0.00	1,193,486.29
Atmospheric deposition	7,196.00	0.00	0.00	0.00
Total nutrients applied	270,381.13	42,233.22	306,312.15	2,577,322.15
Anticipated crop nutrient removal	240,552.00	37,316.40	171,778.80	1,130,800.00
Actual crop nutrient removal	230,974.14	37,397.19	275,658.09	1,212,187.83
Nutrient balance	39,406.99	4,836.03	30,654.06	1,365,134.32
Applied to removed ratio	1.17	1.13	1.11	2.13

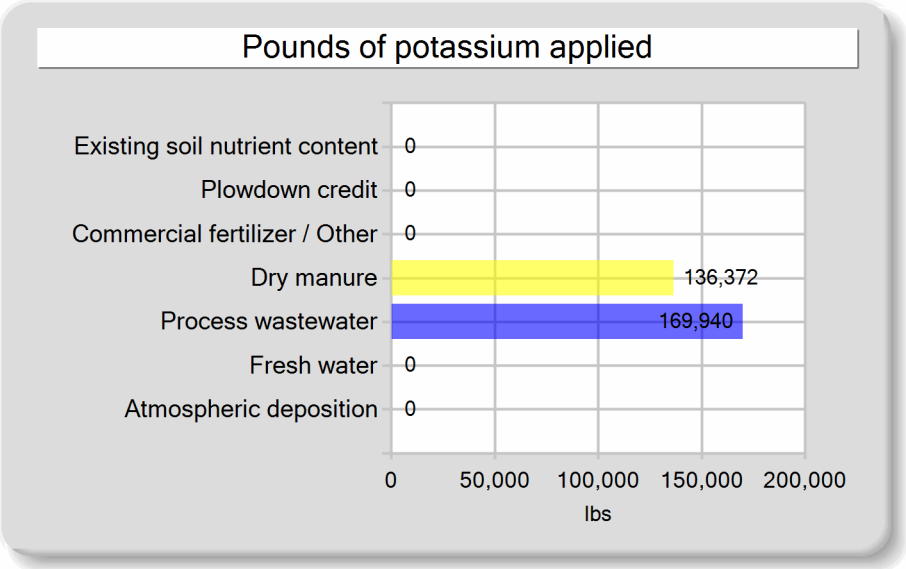
B. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL

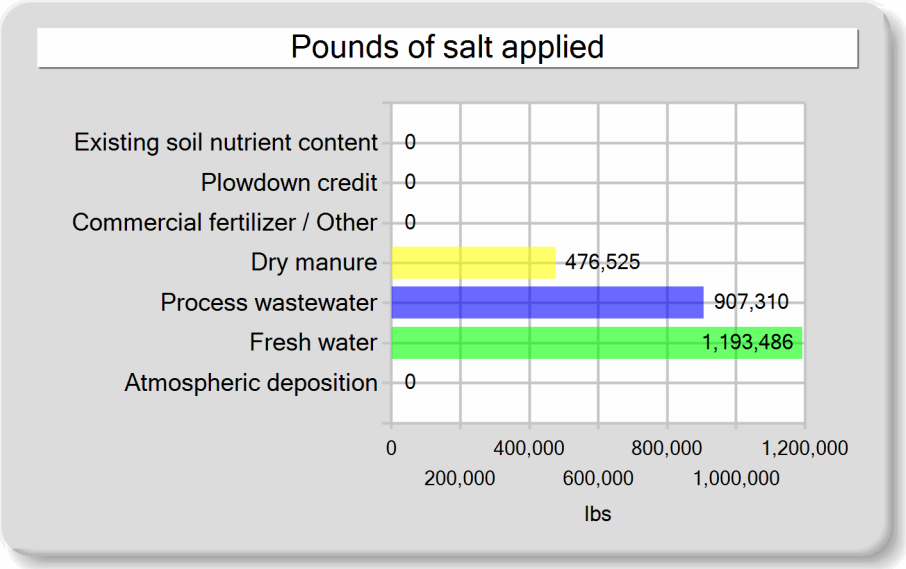


C. POUNDS OF NUTRIENT APPLIED BY MATERIAL TYPE









EXCEPTION REPORTING

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

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

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

B. STORM WATER DISCHARGES

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

No stormwater discharges occurred during the reporting period.

C. LAND APPLICATION AREA TO SURFACE WATER DISCHARGES

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

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

NUTRIENT MANAGEMENT PLAN AND EXPORT AGREEMENT STATEMENTS

A. NUTRIENT MANAGEMENT PLAN STATEMENTS

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

B. EXPORT AGREEMENT STATEMENT

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

ADDITIONAL NOTES

A. NOTES

Souza's Dairy Inc.

Lagoon applications: total gallons applied are increased due to the amount of fresh waters added to lagoon before actual applications.

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.

Sandy Tavares
Sandy Tavares (Jun 27, 2024 14:10 PDT)

SIGNATURE OF OWNER OF FACILITY	SIGNATURE OF OPERATOR OF FACILITY
Sandy Tavares	SAME AS OWNER
PRINT OR TYPE NAME	PRINT OR TYPE NAME
Jun 27, 2024	
DATE	DATE

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.

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

INSTRUCTIONS

1) Complete one manifest for each hauling event, for each destination. A hauling event may last for several days, as long as the manure is being hauled to the same destination.
2) If there are multiple destinations, complete a separate form for each destination.
3) The operator must obtain the signature of the hauler upon completion of each manure/process wastewater hauling event.
4) The operator shall submit copies of manure/process wastewater tracking manifest(s) with the Annual Monitoring Report for Existing Milk Cow Dairies.

OPERATOR INFORMATION

Name of Operator: Dan Souza

Name of Dairy Facility: Souza's Dairy, Inc.

Facility Address:

Number and Street	City	County	Zip Code
8555 S Valentine AVE	Fresno	Fresno	93706

Contact Person Name and Phone Number:

Name	Phone Number
Dan Souza	(559) 285-5555

MANURE HAULER INFORMATION

Name of Hauling Company/Person: Larry Burrows Spreading

Address of Hauling Company/Person:

Number and Street	City	State	Zip Code
11751 W. Jensen Avenue	Kerman	CA	93630

Contact Person:

Name	Phone Number
Burrows Larry	(559) 846-9671

DESTINATION INFORMATION

Composting Facility / Broker / Farmer / Other (identify): Broker

Contact information of Composting Facility, Broker, Farmer, or Other (as identified above):

Name	Phone Number
Larry Burrows Spreading	(559) 846-9671

Address	City	State	Zip Code
11751 W. Jensen Avenue	Kerman	CA	93630

Destination Address or Assessor's Parcel Number:

Address	City	Zip Code
	Fresno	93725

Street and nearest cross street (if no address)	County
Gill Farms - W. Floral and S. Elm Avenues	Fresno

Assessor's Parcel Number	Assessor's Parcel Number County

Last date hauled: 12/11/2023

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

MANURE AMOUNT HAULED

Enter the amount of manure hauled in tons, manure solids content, and the method used to calculate the amount:

Manure: 1,300.00 tons

Manure Solids Content: 57.2 %

Method used to determine amount of manure:

An Average of scale weighed truck multiplied by the total number of trucks hauled.

CERTIFICATION

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

Sandy Tavares
Sandy Tavares (Jun 27, 2024 14:10 PDT)
Operator Signature

Jun 27, 2024
Date

Tony Burrows
Hauler Signature

6-25-24
Date

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

INSTRUCTIONS

1) Complete one manifest for each hauling event, for each destination. A hauling event may last for several days, as long as the manure is being hauled to the same destination.
2) If there are multiple destinations, complete a separate form for each destination.
3) The operator must obtain the signature of the hauler upon completion of each manure/process wastewater hauling event.
4) The operator shall submit copies of manure/process wastewater tracking manifest(s) with the Annual Monitoring Report for Existing Milk Cow Dairies.

OPERATOR INFORMATION

Name of Operator: Dan Souza

Name of Dairy Facility: Souza's Dairy, Inc.

Facility Address:

Number and Street	City	County	Zip Code
8555 S Valentine AVE	Fresno	Fresno	93706

Contact Person Name and Phone Number:

Name	Phone Number
Dan Souza	(559) 285-5555

MANURE HAULER INFORMATION

Name of Hauling Company/Person: Larry Burrows Spreading

Address of Hauling Company/Person:

Number and Street	City	State	Zip Code
11751 W. Jensen Avenue	Kerman	CA	93630

Contact Person:

Name	Phone Number
Burrows Larry	(559) 846-9671

DESTINATION INFORMATION

Composting Facility / Broker / Farmer / Other (identify): Broker

Contact information of Composting Facility, Broker, Farmer, or Other (as identified above):

Name	Phone Number
Larry Burrows Spreading	(559) 846-9671

Address	City	State	Zip Code
11751 W. Jensen Avenue	Kerman	CA	93630

Destination Address or Assessor's Parcel Number:

Address	City	Zip Code
	Fresno	93725

Street and nearest cross street (if no address)	County
Muscat and Dickenson Avenues	Fresno

Assessor's Parcel Number	Assessor's Parcel Number County

Last date hauled: 11/15/2023

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

MANURE AMOUNT HAULED

Enter the amount of manure hauled in tons, manure solids content, and the method used to calculate the amount:

Manure: 525.00 tons

Manure Solids Content: 57.2 %

Method used to determine amount of manure:

An Average of scale weighed truck multiplied by the total number of trucks hauled.

CERTIFICATION

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

Sandy Tavares
Sandy Tavares (Jun 27, 2024 14:10 PDT)
Operator Signature

Jun 27, 2024
Date

Tony Burrows
Hauler Signature

6-25-24
Date

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

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3) The operator must obtain the signature of the hauler upon completion of each manure/process wastewater hauling event.
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OPERATOR INFORMATION

Name of Operator: Dan Souza

Name of Dairy Facility: Souza's Dairy, Inc.

Facility Address:

Number and Street	City	County	Zip Code
8555 S Valentine AVE	Fresno	Fresno	93706

Contact Person Name and Phone Number:

Name	Phone Number
Dan Souza	(559) 289-1795

MANURE HAULER INFORMATION

Name of Hauling Company/Person: Larry Burrows Spreading

Address of Hauling Company/Person:

Number and Street	City	State	Zip Code
11751 W. Jensen Avenue	Kerman	CA	93630

Contact Person:

Name	Phone Number
Burrows Larry	(559) 846-9671

DESTINATION INFORMATION

Composting Facility / Broker / Farmer / Other (identify): Broker

Contact information of Composting Facility, Broker, Farmer, or Other (as identified above):

Name	Phone Number
Larry Burrows Spreading	(559) 846-9671

Address	City	State	Zip Code
11751 W. Jensen Avenue	Kerman	CA	93630

Destination Address or Assessor's Parcel Number:

Address	City	Zip Code
11751 W. Jensen Avenue	Kerman	93630

Street and nearest cross street (if no address)	County
W. Jensen Avenue	Fresno

Assessor's Parcel Number	Assessor's Parcel Number County

Last date hauled: 10/10/2023

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

MANURE AMOUNT HAULED

Enter the amount of manure hauled in tons, manure solids content, and the method used to calculate the amount:

Manure: 850.00 tons

Manure Solids Content: 50.1 %

Method used to determine amount of manure:

Averaged scale weighed trucks multiplied by the number of trucks hauled.

CERTIFICATION

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

Sandy Tavares
Sandy Tavares (Jun 27, 2024 14:10 PDT)
Operator Signature

Jun 27, 2024
Date

Tony Burrows
Hauler Signature

6-25-24
Date

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

INSTRUCTIONS

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2) If there are multiple destinations, complete a separate form for each destination.
3) The operator must obtain the signature of the hauler upon completion of each manure/process wastewater hauling event.
4) The operator shall submit copies of manure/process wastewater tracking manifest(s) with the Annual Monitoring Report for Existing Milk Cow Dairies.

OPERATOR INFORMATION

Name of Operator: Dan Souza

Name of Dairy Facility: Souza's Dairy, Inc.

Facility Address:

Number and Street	City	County	Zip Code
8555 S Valentine AVE	Fresno	Fresno	93706

Contact Person Name and Phone Number:

Name	Phone Number
Dan Souza	(559) 289-1795

MANURE HAULER INFORMATION

Name of Hauling Company/Person: Larry Burrows Spreading

Address of Hauling Company/Person:

Number and Street	City	State	Zip Code
11751 W. Jensen Avenue	Kerman	CA	93630

Contact Person:

Name	Phone Number
Burrows Larry	(559) 846-9671

DESTINATION INFORMATION

Composting Facility / Broker / Farmer / Other (identify): Broker

Contact information of Composting Facility, Broker, Farmer, or Other (as identified above):

Name	Phone Number
Larry Burrows Spreading	(559) 846-9671

Address	City	State	Zip Code
11751 W. Jensen Avenue	Kerman	CA	93630

Destination Address or Assessor's Parcel Number:

Address	City	Zip Code
11751 W. Jensen Avenue	Kerman	93630

Street and nearest cross street (if no address)	County
W. Jensen Avenue	Fresno

Assessor's Parcel Number	Assessor's Parcel Number County

Last date hauled: 06/05/2023

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

MANURE AMOUNT HAULED

Enter the amount of manure hauled in tons, manure solids content, and the method used to calculate the amount:

Manure: 4,700.00 tons

Manure Solids Content: 57.2 %

Method used to determine amount of manure:

Averaged scale weighed trucks multiplied by the number of trucks hauled.

CERTIFICATION

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

Sandy Tavares
Sandy Tavares (Jun 27, 2024 14:10 PDT)
Operator Signature

Jun 27, 2024
Date

Tony Burrows
Hauler Signature

6-25-24
Date

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

INSTRUCTIONS

1) Complete one manifest for each hauling event, for each destination. A hauling event may last for several days, as long as the manure is being hauled to the same destination.
2) If there are multiple destinations, complete a separate form for each destination.
3) The operator must obtain the signature of the hauler upon completion of each manure/process wastewater hauling event.
4) The operator shall submit copies of manure/process wastewater tracking manifest(s) with the Annual Monitoring Report for Existing Milk Cow Dairies.

OPERATOR INFORMATION

Name of Operator: Dan Souza

Name of Dairy Facility: Souza's Dairy, Inc.

Facility Address:

Number and Street	City	County	Zip Code
8555 S Valentine AVE	Fresno	Fresno	93706

Contact Person Name and Phone Number:

Name	Phone Number
Dan Souza	(559) 289-1795

MANURE HAULER INFORMATION

Name of Hauling Company/Person: Larry Burrows Spreading

Address of Hauling Company/Person:

Number and Street	City	State	Zip Code
11751 W. Jensen Avenue	Kerman	CA	93630

Contact Person:

Name	Phone Number
Burrows Larry	(559) 846-9671

DESTINATION INFORMATION

Composting Facility / Broker / Farmer / Other (identify): Broker

Contact information of Composting Facility, Broker, Farmer, or Other (as identified above):

Name	Phone Number
Larry Burrows Spreading	(559) 846-9671

Address	City	State	Zip Code
11751 W. Jensen Avenue	Kerman	CA	93630

Destination Address or Assessor's Parcel Number:

Address	City	Zip Code
11751 W. Jensen Avenue	Kerman	93630

Street and nearest cross street (if no address)	County
W. Jensen Avenue	Fresno

Assessor's Parcel Number	Assessor's Parcel Number County

Last date hauled: 05/31/2023

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

MANURE AMOUNT HAULED

Enter the amount of manure hauled in tons, manure solids content, and the method used to calculate the amount:

Manure: 1,000.00 tons

Manure Solids Content: 57.2 %

Method used to determine amount of manure:

Averaged scale weighed trucks multiplied by the number of trucks hauled.

CERTIFICATION

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

Sandy Tavares
Sandy Tavares (Jun 27, 2024 14:10 PDT)
Operator Signature

Jun 27, 2024
Date

Tony Burrows
Hauler Signature

6-25-24
Date

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

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4) The operator shall submit copies of manure/process wastewater tracking manifest(s) with the Annual Monitoring Report for Existing Milk Cow Dairies.

OPERATOR INFORMATION

Name of Operator: Dan Souza

Name of Dairy Facility: Souza's Dairy, Inc.

Facility Address:

Number and Street	City	County	Zip Code
8555 S Valentine AVE	Fresno	Fresno	93706

Contact Person Name and Phone Number:

Name	Phone Number
Dan Souza	(559) 289-1795

MANURE HAULER INFORMATION

Name of Hauling Company/Person: Larry Burrows Spreading

Address of Hauling Company/Person:

Number and Street	City	State	Zip Code
11751 W. Jensen Avenue	Kerman	CA	93630

Contact Person:

Name	Phone Number
Burrows Larry	(559) 846-9671

DESTINATION INFORMATION

Composting Facility / Broker / Farmer / Other (identify): Broker

Contact information of Composting Facility, Broker, Farmer, or Other (as identified above):

Name	Phone Number
Larry Burrows Spreading	(559) 846-9671

Address	City	State	Zip Code
11751 W. Jensen Avenue	Kerman	CA	93630

Destination Address or Assessor's Parcel Number:

Address	City	Zip Code
11751 W. Jensen Avenue	Kerman	93630

Street and nearest cross street (if no address)	County
W. Jensen Avenue	Fresno

Assessor's Parcel Number	Assessor's Parcel Number County

Last date hauled: 05/19/2023

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

MANURE AMOUNT HAULED

Enter the amount of manure hauled in tons, manure solids content, and the method used to calculate the amount:

Manure: 1,925.00 tons

Manure Solids Content: 57.2 %

Method used to determine amount of manure:

Averaged scale weighed trucks multiplied by the number of trucks hauled.

CERTIFICATION

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

Sandy Tavares
Sandy Tavares (Jun 27, 2024 14:10 PDT)
Operator Signature

Jun 27, 2024
Date

Tony Burrows
Hauler Signature

6-25-24
Date

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

INSTRUCTIONS

1) Complete one manifest for each hauling event, for each destination. A hauling event may last for several days, as long as the manure is being hauled to the same destination.
2) If there are multiple destinations, complete a separate form for each destination.
3) The operator must obtain the signature of the hauler upon completion of each manure/process wastewater hauling event.
4) The operator shall submit copies of manure/process wastewater tracking manifest(s) with the Annual Monitoring Report for Existing Milk Cow Dairies.

OPERATOR INFORMATION

Name of Operator: Dan Souza

Name of Dairy Facility: Souza's Dairy, Inc.

Facility Address:

8555 S Valentine AVE	Fresno	Fresno	93706
Number and Street	City	County	Zip Code

Contact Person Name and Phone Number: Dan Souza (559) 289-1795
Name Phone Number

MANURE HAULER INFORMATION

Name of Hauling Company/Person: Larry Burrows Spreading

Address of Hauling Company/Person:

11751 W. Jensen Avenue	Kerman	CA	93630
Number and Street	City	State	Zip Code

Contact Person: Burrows Larry (559) 846-9671
Name Phone Number

DESTINATION INFORMATION

Composting Facility / Broker / Farmer / Other (identify): Broker

Contact information of Composting Facility, Broker, Farmer, or Other (as identified above):

Larry Burrows Spreading (559) 846-9671
Name Phone Number

11751 W. Jensen Avenue	Kerman	CA	93630
Address	City	State	Zip Code

Destination Address or Assessor's Parcel Number:

11751 W. Jensen Avenue	Kerman	93630
Address	City	Zip Code

Central & Dickenson Avenues	Fresno
Street and nearest cross street (if no address)	County

Assessor's Parcel Number Assessor's Parcel Number County

Last date hauled: 05/10/2023

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

MANURE AMOUNT HAULED

Enter the amount of manure hauled in tons, manure solids content, and the method used to calculate the amount:

Manure: 275.00 tons

Manure Solids Content: 57.2 %

Method used to determine amount of manure:

Averaged scale weighed trucks multiplied by the number of trucks hauled.

CERTIFICATION

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

Sandy Tavares
Sandy Tavares (Jun 27, 2024 14:10 PDT)
Operator Signature

Jun 27, 2024
Date

Tony Burrows
Hauler Signature

6-25-24
Date

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

INSTRUCTIONS

1) Complete one manifest for each hauling event, for each destination. A hauling event may last for several days, as long as the manure is being hauled to the same destination.
2) If there are multiple destinations, complete a separate form for each destination.
3) The operator must obtain the signature of the hauler upon completion of each manure/process wastewater hauling event.
4) The operator shall submit copies of manure/process wastewater tracking manifest(s) with the Annual Monitoring Report for Existing Milk Cow Dairies.

OPERATOR INFORMATION

Name of Operator: Dan Souza

Name of Dairy Facility: Souza's Dairy, Inc.

Facility Address:

8555 S Valentine AVE	Fresno	Fresno	93706
Number and Street	City	County	Zip Code

Contact Person Name and Phone Number: Dan Souza (559) 289-1795
Name Phone Number

MANURE HAULER INFORMATION

Name of Hauling Company/Person: Larry Burrows Spreading

Address of Hauling Company/Person:

11751 W. Jensen Avenue	Kerman	CA	93630
Number and Street	City	State	Zip Code

Contact Person: Burrows Larry (559) 846-9671
Name Phone Number

DESTINATION INFORMATION

Composting Facility / Broker / Farmer / Other (identify): Broker

Contact information of Composting Facility, Broker, Farmer, or Other (as identified above):

Larry Burrows Spreading (559) 846-9671
Name Phone Number

11751 W. Jensen Avenue	Kerman	CA	93630
Address	City	State	Zip Code

Destination Address or Assessor's Parcel Number:

11751 W. Jensen Avenue	Kerman	93630
Address	City	Zip Code

W. Jensen Avenue	Fresno
Street and nearest cross street (if no address)	County

Assessor's Parcel Number Assessor's Parcel Number County

Last date hauled: 05/09/2023

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

MANURE AMOUNT HAULED

Enter the amount of manure hauled in tons, manure solids content, and the method used to calculate the amount:

Manure: 672.00 tons

Manure Solids Content: 59.7 %

Method used to determine amount of manure:

Averaged scale weighed trucks multiplied by the number of trucks hauled.

CERTIFICATION

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

Sandy Tavares
Sandy Tavares (Jun 27, 2024 14:10 PDT)
Operator Signature

Jun 27, 2024
Date

Tony Burrows
Hauler Signature

6-25-24
Date

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

INSTRUCTIONS

1) Complete one manifest for each hauling event, for each destination. A hauling event may last for several days, as long as the manure is being hauled to the same destination.
2) If there are multiple destinations, complete a separate form for each destination.
3) The operator must obtain the signature of the hauler upon completion of each manure/process wastewater hauling event.
4) The operator shall submit copies of manure/process wastewater tracking manifest(s) with the Annual Monitoring Report for Existing Milk Cow Dairies.

OPERATOR INFORMATION

Name of Operator: Dan Souza

Name of Dairy Facility: Souza's Dairy, Inc.

Facility Address:

Number and Street	City	County	Zip Code
8555 S Valentine AVE	Fresno	Fresno	93706

Contact Person Name and Phone Number:

Name	Phone Number
Dan Souza	(559) 289-1795

MANURE HAULER INFORMATION

Name of Hauling Company/Person: Larry Burrows Spreading

Address of Hauling Company/Person:

Number and Street	City	State	Zip Code
11751 W. Jensen Avenue	Kerman	CA	93630

Contact Person:

Name	Phone Number
Burrows Larry	(559) 846-9671

DESTINATION INFORMATION

Composting Facility / Broker / Farmer / Other (identify): Broker

Contact information of Composting Facility, Broker, Farmer, or Other (as identified above):

Name	Phone Number
Larry Burrows Spreading	(559) 846-9671

Address	City	State	Zip Code
11751 W. Jensen Avenue	Kerman	CA	93630

Destination Address or Assessor's Parcel Number:

Address	City	Zip Code
11751 W. Jensen Avenue	Kerman	93630

Street and nearest cross street (if no address)	County
W. Jensen Avenue	Fresno

Assessor's Parcel Number	Assessor's Parcel Number County

Last date hauled: 03/25/2023

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

MANURE AMOUNT HAULED

Enter the amount of manure hauled in tons, manure solids content, and the method used to calculate the amount:

Manure: 850.00 tons

Manure Solids Content: 59.7 %

Method used to determine amount of manure:

Averaged scale weighed trucks multiplied by the number of trucks hauled.

CERTIFICATION

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Sandy Tavares
Sandy Tavares (Jun 27, 2024 14:10 PDT)
Operator Signature

Jun 27, 2024
Date

Tony Burrows
Hauler Signature

6-25-24
Date

Denele Analytical, Inc.

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

www.denelelabs.com

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

Compliance Analysis Report

Customer
SOUZA'S DAIRY INC. #1
8555 S Valentine Ave
Fresno, CA 93706

Grower

Consultant:
Heartland Consulting
P.O. Box 3679
Merced, CA 95344

PURCHASE ORDER:
RECEIVED DATE: 8/17/23 2:40 PM
SUBMITTED BY: Dan
ANALYZED DATE: 8/18/23

Irrigation/ Ground Water (H1)
SOURCE: Well Water

NOTES: Temperature was above qualifying at 19.4c

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Carsten-N	T3229028A	Electrical Conductivity (EC)	EPA 120.1 and	1.15	mmhos/cm
		Nitrate Nitrogen (NO3-N)	EPA 353.2	25.3	mg/L
		Ammonia Nitrogen (NH3-N)	SM 4500-NH3 D,C	< 0.500	mg/L
		Soluble Salts (SALT-SOL)	Calculation	734	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
Ammonia Nitrogen (NH3-N)	97.8	91.0 (T3229026A)	94.6 (T3229026A)	3.87
Electrical Conductivity (EC)	100			0.612
Nitrate Nitrogen (NO3-N)	103	99.7 (T3229026A)	97.3 (T3229026A)	2.46

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ELAP Certificate No.: 2714

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SOUZA'S DAIRY INC. #1
8555 S Valentine Ave
Fresno, CA 93706

Grower

Consultant:
Heartland Consulting
P.O. Box 3679
Merced, CA 95344

PURCHASE ORDER:
RECEIVED DATE: 8/17/23 2:40 PM
SUBMITTED BY: Dan
ANALYZED DATE: 8/18/23

Irrigation/ Ground Water (H1)
SOURCE: Canal Water

NOTES: Temperature was above qualifying at 26.4c

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
F.I.D. Canal	T3229028B	Electrical Conductivity (EC)	EPA 120.1 and	< 0.100	mmhos/cm
		Nitrate Nitrogen (NO3-N)	EPA 353.2	1.20	mg/L
		Ammonia Nitrogen (NH3-N)	SM 4500-NH3 D,C	1.93	mg/L
		Soluble Salts (SALT-SOL)	Calculation	36.6	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
Ammonia Nitrogen (NH3-N)	97.8	91.0 (T3229026A)	94.6 (T3229026A)	3.87
Electrical Conductivity (EC)	100			1.27
Nitrate Nitrogen (NO3-N)	103	99.7 (T3229026A)	97.3 (T3229026A)	2.46

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Fresno, CA 93706

Grower

Consultant:
Heartland Consulting
P.O. Box 3679
Merced, CA 95344

PURCHASE ORDER:
RECEIVED DATE: 8/17/23 2:40 PM
SUBMITTED BY: Dan
ANALYZED DATE: 8/18/23

Irrigation/ Ground Water (H1)
SOURCE: Well Water

NOTES: Temperature was above qualifying at 20.6c

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
Hospital	T3229028C	Electrical Conductivity (EC)	EPA 120.1 and	0.165	mmhos/cm
		Nitrate Nitrogen (NO3-N)	EPA 353.2	0.804	mg/L
		Ammonia Nitrogen (NH3-N)	SM 4500-NH3 D,C	< 0.500	mg/L
		Soluble Salts (SALT-SOL)	Calculation	106	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
Ammonia Nitrogen (NH3-N)	97.8	91.0 (T3229026A)	94.6 (T3229026A)	3.87
Electrical Conductivity (EC)	100			1.27
Nitrate Nitrogen (NO3-N)	103	99.7 (T3229026A)	97.3 (T3229026A)	2.46

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DENELE ANALYTICAL, INC.

865 S. KILROY
TURLOCK, CA 95380

PH# 209-634-9055 FAX# 209-634-9057

DAIRY COMPLIANCE

Client: SOUZA'S DAIRY, INC.
Mailing address: 8555 S. Valentine Ave. Fresno CA 93706
(not facility address)
Phone#: 559-352-6428

Authorized Copy Released To:
hlcdan@yahoo.com

Sampled By: Daniel Roos
Project ID:

ANALYSIS TO BE COMPLETED:

IRRIGATION/GROUND WATER
H1 EC*, NO3-N, NH4-N*
H6 EC, TN, TDS
H7 Combination of H1 & H6
H14 EC, NO3-N, NH4-N, Ca, Mg, Na, Bicarb Carb, SO4, Cl, TDS

PROCESS WASTE WATER
H3 EC*, NH4-N, TKN, TP, K, TDS
H4 EC*, NO3-N, NH4-N, TKN, TP, K, TDS
H5 Ca, Mg, Na, Bicarb, Carb, SO4, Cl
H8 Combination of H3 &H5
H9 Combination of H4 &H5

TILE DRAIN
H2 EC*, NO3-N, TP, NH4-N*, TDS

** Required Field Measurement*
___ (Check here if performed)

DISCHARGE WATER
E1 EC*, Temp*, pH*, NO3-N, NH4-N, TKN, TP, K, TDS, Dissolved Oxygen*, BOD 5, TSS, Total & Fecal Coliforms
E2 EC,* Temp*, pH*, NO3-N, NH4-N*, Turbidity, TP, Dissolved Oxygen*, Total & Fecal Coliforms
E3 EC*, Temp*, pH*, NO3-N, NH4-N*, TP, Total & Fecal Coliforms
E4 EC*, Temp*, pH*, NO3-N, NH4-N*, Turbidity, TP, Total & Fecal Coliform

MANURE
M1 % Moisture
M3 TN TP, K, % Moisture
M4 Ca, Mg, Na, Bicarb, Carb, SO4, Cl, Ash
M7 Combination of M3 & M4

PLANT TISSUE
F18 % Moisture, Ash, TN, P, K, DM and as received
F18+ % Moisture, Ash, TN, P, K, DM and as received (Package also includes NIR DCAD)
F19+ % Moisture, TN (Package includes complete plant tissue analysis)

SOIL
K3 Soluble Phosphorus
K4 1ft NO3, Organic Matter
K5 Pre-Plant (2ft NO3), Fall (1-2ft NO3), Fall (2-3ft NO3)
K6 0-1ft EC, NO3, Soluble P, K, Organic Matter
K7 Combination of K3 & K4
K8 Combination of K3 & K5

	Date Collected	Time Collected	Sample ID	Description	Temp	Well Purge	H1	H3	M3	F18	OTHER
1	8-16-23	0940	CARSTEN - N		19.4		X				
2	8-16-23	0945	F.I.D. CANAL	16-700 GPMS	26.4		X				
3	8-16-23	0955	HOSPITAL		20.6		X				
4	8-16-23	1005	POND - SOUTH - 3		21.4			X			
5											
6											
7											
8											
9											
10											

Analysis

CHAIN OF CUSTODY RECORDING

	Signature	Company	Received Date & Time	Relinquished Date & Time	Logged In By:	LABORATORY NUMBER
1st	[signature]	HeartLand Consulting		8-17-23 1440		
2nd	[signature]	DENELE ANALYTICAL, INC.	8/17/23 1440			T3229028

(LABORATORY USE ONLY)

Required to be submitted to any agency? (YES / NO)

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Compliance Analysis Report

Customer
SOUZA'S DAIRY INC. #1
8555 S Valentine Ave
Fresno, CA 93706

Grower

Consultant:
Heartland Consulting
P.O. Box 3679
Merced, CA 95344

PURCHASE ORDER:
RECEIVED DATE: 10/26/23 3:45 PM
SUBMITTED BY: Dan
ANALYZED DATE: 10/27/23

Irrigation/ Ground Water (H1)
SOURCE: Well Water

NOTES: Temperature was above qualifying at 17.6c

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
#4-Dom.	T3299056A	Electrical Conductivity (EC)	EPA 120.1 and	0.311	mmhos/cm
		Nitrate Nitrogen (NO3-N)	EPA 353.2	4.32	mg/L
		Ammonia Nitrogen (NH3-N)	SM 4500-NH3 D,C	< 0.500	mg/L
		Soluble Salts (SALT-SOL)	Calculation	199	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
Ammonia Nitrogen (NH3-N)	93.2			
Electrical Conductivity (EC)	97.3			0.287
Nitrate Nitrogen (NO3-N)	96.3	93.3 (T3299003A)	93.6 (T3299003A)	0.300

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ELAP Certificate No.: 2714

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Grower

Consultant:
Heartland Consulting
P.O. Box 3679
Merced, CA 95344

PURCHASE ORDER:
RECEIVED DATE: 10/26/23 3:45 PM
SUBMITTED BY: Dan
ANALYZED DATE: 10/27/23

Irrigation/ Ground Water (H1)
SOURCE: Well Water

NOTES: Temperature was above qualifying at 17.2c

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
#1-Dom.	T3299056B	Electrical Conductivity (EC)	EPA 120.1 and	0.397	mmhos/cm
		Nitrate Nitrogen (NO3-N)	EPA 353.2	5.41	mg/L
		Ammonia Nitrogen (NH3-N)	SM 4500-NH3 D,C	< 0.500	mg/L
		Soluble Salts (SALT-SOL)	Calculation	254	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
Ammonia Nitrogen (NH3-N)	93.2			
Electrical Conductivity (EC)	97.3			0.287
Nitrate Nitrogen (NO3-N)	96.3	93.3 (T3299003A)	93.6 (T3299003A)	0.300

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Grower

Consultant:
Heartland Consulting
P.O. Box 3679
Merced, CA 95344

PURCHASE ORDER:
RECEIVED DATE: 10/26/23 3:45 PM
SUBMITTED BY: Dan
ANALYZED DATE: 10/27/23

Irrigation/ Ground Water (H1)
SOURCE: Well Water

NOTES: Temperature was above qualifying at 17.2c

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
#2-Dom.	T3299056C	Electrical Conductivity (EC)	EPA 120.1 and	0.399	mmhos/cm
		Nitrate Nitrogen (NO3-N)	EPA 353.2	5.15	mg/L
		Ammonia Nitrogen (NH3-N)	SM 4500-NH3 D,C	< 0.500	mg/L
		Soluble Salts (SALT-SOL)	Calculation	255	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
Ammonia Nitrogen (NH3-N)	93.2			
Electrical Conductivity (EC)	97.3			0.287
Nitrate Nitrogen (NO3-N)	96.3	93.3 (T3299003A)	93.6 (T3299003A)	0.300

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Fresno, CA 93706

Grower

Consultant:
Heartland Consulting
P.O. Box 3679
Merced, CA 95344

PURCHASE ORDER:
RECEIVED DATE: 10/26/23 3:45 PM
SUBMITTED BY: Dan
ANALYZED DATE: 10/27/23

Irrigation/ Ground Water (H1)
SOURCE: Well Water

NOTES: Temperature was above qualifying at 17.0c

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
#3-Dom.	T3299056D	Electrical Conductivity (EC)	EPA 120.1 and	0.886	mmhos/cm
		Nitrate Nitrogen (NO3-N)	EPA 353.2	14.0	mg/L
		Ammonia Nitrogen (NH3-N)	SM 4500-NH3 D,C	< 0.500	mg/L
		Soluble Salts (SALT-SOL)	Calculation	567	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
Ammonia Nitrogen (NH3-N)	93.2			
Electrical Conductivity (EC)	97.3			0.287
Nitrate Nitrogen (NO3-N)	96.3	93.3 (T3299003A)	93.6 (T3299003A)	0.300

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Consultant:
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Merced, CA 95344

PURCHASE ORDER:
RECEIVED DATE: 10/26/23 3:45 PM
SUBMITTED BY: Dan
ANALYZED DATE: 10/27/23

Irrigation/ Ground Water (H1)
SOURCE: Well Water

NOTES: Temperature was above qualifying at 17.2c

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
#8626-Dom.	T3299056E	Electrical Conductivity (EC)	EPA 120.1 and	0.476	mmhos/cm
		Nitrate Nitrogen (NO3-N)	EPA 353.2	6.66	mg/L
		Ammonia Nitrogen (NH3-N)	SM 4500-NH3 D,C	< 0.500	mg/L
		Soluble Salts (SALT-SOL)	Calculation	304	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
Ammonia Nitrogen (NH3-N)	93.2			
Electrical Conductivity (EC)	97.3			0.287
Nitrate Nitrogen (NO3-N)	96.3	93.3 (T3299003A)	93.6 (T3299003A)	0.300

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Merced, CA 95344

PURCHASE ORDER:
RECEIVED DATE: 10/26/23 3:45 PM
SUBMITTED BY: Dan
ANALYZED DATE: 10/27/23

Irrigation/ Ground Water (H1)
SOURCE: Well Water

NOTES: Temperature was above qualifying at 17.6c

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
#3515-Dom.	T3299056F	Electrical Conductivity (EC)	EPA 120.1 and	0.574	mmhos/cm
		Nitrate Nitrogen (NO3-N)	EPA 353.2	8.28	mg/L
		Ammonia Nitrogen (NH3-N)	SM 4500-NH3 D,C	< 0.500	mg/L
		Soluble Salts (SALT-SOL)	Calculation	367	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
Ammonia Nitrogen (NH3-N)	93.2			
Electrical Conductivity (EC)	97.3			0.287
Nitrate Nitrogen (NO3-N)	96.3	93.3 (T3299003A)	93.6 (T3299003A)	0.300

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Heartland Consulting
P.O. Box 3679
Merced, CA 95344

PURCHASE ORDER:
RECEIVED DATE: 10/26/23 3:45 PM
SUBMITTED BY: Dan
ANALYZED DATE: 10/27/23

Irrigation/ Ground Water (H1)
SOURCE: Well Water

NOTES: Temperature was above qualifying at 17.2c

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
#7762-Dom.	T3299056G	Electrical Conductivity (EC)	EPA 120.1 and	0.854	mmhos/cm
		Nitrate Nitrogen (NO3-N)	EPA 353.2	23.7	mg/L
		Ammonia Nitrogen (NH3-N)	SM 4500-NH3 D,C	< 0.500	mg/L
		Soluble Salts (SALT-SOL)	Calculation	547	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
Ammonia Nitrogen (NH3-N)	93.2			
Electrical Conductivity (EC)	97.3			0.287
Nitrate Nitrogen (NO3-N)	96.3	93.3 (T3299003A)	93.6 (T3299003A)	0.300

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

DENELE ANALYTICAL, INC.

865 S. KILROY
TURLOCK, CA 95380

PH# 209-634-9055 FAX# 209-634-9057

DAIRY COMPLIANCE

Client: SOUZA'S DAIRY, INC.
Mailing address: 8555 S. Valentine Ave. Fresno CA 93706
(not facility address)
Phone#: 559-352-6428

Authorized Copy Released To:
hlcdan@yahoo.com

Sampled By: Daniel Roos
Project ID:

ANALYSIS TO BE COMPLETED:

IRRIGATION/GROUND WATER
H1 EC*, NO3-N, NH4-N*
H6 EC, TN, TDS
H7 Combination of H1 & H6
H14 EC, NO3-N, NH4-N, Ca, Mg, Na, Bicarb Carb, SO4, Cl, TDS

PROCESS WASTE WATER
H3 EC*, NH4-N, TKN, TP, K, TDS
H4 EC*, NO3-N, NH4-N, TKN, TP, K, TDS
H5 Ca, Mg, Na, Bicarb, Carb, SO4, Cl
H8 Combination of H3 &H5
H9 Combination of H4 &H5

TILE DRAIN
H2 EC*, NO3-N, TP, NH4-N*, TDS

** Required Field Measurement*
___ (Check here if performed)

DISCHARGE WATER
E1 EC*, Temp*, pH*, NO3-N, NH4-N, TKN, TP, K, TDS, Dissolved Oxygen*, BOD 5, TSS, Total & Fecal Coliforms
E2 EC,* Temp*, pH*, NO3-N, NH4-N*, Turbidity, TP, Dissolved Oxygen*, Total & Fecal Coliforms
E3 EC*, Temp*, pH*, NO3-N, NH4-N*, TP, Total & Fecal Coliforms
E4 EC*, Temp*, pH*, NO3-N, NH4-N*, Turbidity, TP, Total & Fecal Coliform

MANURE
M1 % Moisture
M3 TN TP, K, % Moisture
M4 Ca, Mg, Na, Bicarb, Carb, SO4, Cl, Ash
M7 Combination of M3 & M4

PLANT TISSUE
F18 % Moisture, Ash, TN, P, K, DM and as received
F18+ % Moisture, Ash, TN, P, K, DM and as received (Package also includes NIR DCAD)
F19+ % Moisture, TN (Package includes complete plant tissue analysis)

SOIL
K3 Soluble Phosphorus
K4 1ft NO3, Organic Matter
K5 Pre-Plant (2ft NO3), Fall (1-2ft NO3), Fall (2-3ft NO3)
K6 0-1ft EC, NO3, Soluble P, K, Organic Matter
K7 Combination of K3 & K4
K8 Combination of K3 & K5

	Date Collected	Time Collected	Sample ID	Description	Temp	Well Purge	H1	H3	M3	F18	OTHER
1	10-26-23	815	#4-DOM		17.6		X				
2		820	#1-DOM		17.2		X				
3		825	#2-DOM		17.2		X				
4		835	#3-DOM		17.0		X				
5		845	#8626-DOM		17.2		X				
6		850	#3515-DOM		17.0		X				
7	10-26-23	0910	#7762-DOM		17.2		X				
8											
9											
10											

Analysis

CHAIN OF CUSTODY RECORDING

	Signature	Company	Received Date & Time	Relinquished Date & Time	Logged In By:	LABORATORY NUMBER
1st		HeartLand Consulting		10-26-23 1540		
2nd		DENELE ANALYTICAL, INC.	10-26-23 3:45			T3299056

(LABORATORY USE ONLY)

Required to be submitted to any agency? (YES / NO)

Pages from 2023 AR SOUZA'S DAIRY, INC.

Final Audit Report 2024-06-27

Created:	2024-06-27
By:	Daniel Roos (hlcdan@yahoo.com)
Status:	Signed
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