

EF44 - TANNERY FARM SOIL TESTING RESULTS - 2024

Approved By: General Manager
Version: 2
Issue Date: 04 April 2024
Review Date: 04 April 2027



*Not Tested (NT) No Sample (NS)

ANALYSIS	IRRIGATION SECTOR 1				IRRIGATION SECTOR 2				IRRIGATION SECTOR 3				IRRIGATION SECTOR 4			
	0-10 cm	10-30 cm	30-60 cm	AVE	0-10 cm	10-30 cm	30-60 cm	AVE	0-10 cm	10-30 cm	30-60 cm	AVE	0-10 cm	10-30 cm	30-60 cm	AVE
pH - pH units	5.2	6.1	6.6	5.97	5.3	5.8	5.6	5.57	5.1	5	5.2	5.10	4.7	4.7	4.9	4.77
Electrical Conductivity µS/cm	320	290	590	400.00	410	440	550	466.67	560	340	420	440.00	950	860	850	886.67
TKN-N - mg/kg	1510	440	340	763.33	1150	450	330	643.33	1800	620	400	940.00	3320	600	470	1463.33
Available Phosphorus (Colwell P) - mg/kg	41	7.4	5.6	18.00	66	9.4	12	29.13	71	9.2	5.1	28.43	89	7	6	34.00
Emerson Aggregate Class - Class	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!
Permability - mm/hr	1	1	1	1.00	1	1	1	1.00	1	NT	NT	1.00	NT	NT	NT	#DIV/0!
Exchangeable Calcium - mg/kg	1820	2260	3600	2560.00	1250	2330	2670	2083.33	1660	799	1340	1266.33	771	2140	2340	1750.33
Exchangeable Magnesium - mg/kg	377	586	1050	671.00	216	398	530	381.33	361	113	521	331.67	23.3	55	321	133.10
Exchangeable Potassium - mg/kg	518	450	663	543.67	276	333	289	299.33	417	221	374	337.33	212	206	392	270.00
Exchangeable Sodium - mg/kg	916	944	1720	1193.33	615	1020	936	857.00	1020	390	623	677.67	491	443	667	533.67
Available Nitrate - mg/kg	53	12	14	26.33	59	30	39	42.67	100	22	19	47.00	250	12	7.5	89.83
Total Nitrogen - %	0.156	0.0452	0.0354	0.08	0.121	0.0481	0.0369	0.07	0.19	0.0643	0.042	0.10	0.357	0.0612	0.0478	0.16
Cadnium - mg/kg	0.5	0.5	1.2	0.73	0.7	0.5	1.6	0.93	0.5	0.5	0.5	0.50	0.7	1.3	0.5	0.83
Organic Carbon - %	1.6	0.6	0.4	0.87	1	0.3	0.3	0.53	1.4	0.4	0.3	0.70	2.7	0.3	0.4	1.13
Total Phosphorus - mg/kg	333	98.4	89.2	173.53	268	108	141	172.33	253	122	107	160.67	453	140	122	238.33
Chromium - mg/kg	78.4	25.8	21.6	41.93	84.4	22.5	26	44.30	37.6	27.4	24.3	29.77	121	23.1	28.3	57.47
Chromium VI- mg/kg	1	1	1	1.00	1	1	1	1.00	1	1	1	1.00	1	1	1	1.00
Total Sulfur (LECO) - %	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!
Available Phosphorus (Bray P) - mg/kg	25	6.6	5.1	12.23	36	7.1	7.6	16.90	46	3.7	1.5	17.07	61	4.5	2	22.50
Exchangeable Aluminium - mg/kg	28	32	1.5	30.00	36	2.7	1.3	13.33	30	85	24	46.33	27	46	30	34.33
SAR - SAR Units	7.85	12.2	7.9	9.32	5.86	7.2	8.28	7.11	5	8.3	12.4	8.57	7.26	4.81	4.6	5.56
Chloride - mg/kg	74	92	190	118.67	100	120	170	130.00	150	76	94	106.67	270	160	110	180.00
CEC - cmol/kg	17.5	21.4	35.8	24.90	11.4	20.2	22.5	18.03	16.8	7.2	14.6	12.87	6.7	13.6	18.2	12.83
ESP - %of ECEC	22	19	21	20.67	22	22	18	20.67	25	19	18	20.67	29	13	15	19.00

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ANALYSIS	IRRIGATION SECTOR 5				IRRIGATION SECTOR 6				IRRIGATION SECTOR 7				IRRIGATION SECTOR 8			
	0-10 cm	10-30 cm	30-60 cm	AVE	0-10 cm	10-30 cm	30-60 cm	AVE	0-10 cm	10-30 cm	30-60 cm	AVE	0-10 cm	10-30 cm	30-60 cm	AVE
pH - pH units	4.8	4.6	5.1	4.83	5.5	5.6	6.5	5.87	5.5	5.6	6.6	5.90	5.1	5.4	5.8	5.43
Electrical Conductivity µS/cm	370	420	370	386.67	270	480	500	416.67	300	340	370	336.67	450	430	430	436.67
TKN-N - mg/kg	1650	560	360	856.67	940	710	290	646.67	1080	900	101218	34399.33	15924	2040	2200	6721.43
Available Phosphorus (Colwell P) - mg/kg	46	7.9	6.2	20.03	38	6.9	6.4	17.10	39	13	4.8	18.93	52	10	8.4	23.47
Emerson Aggregate Class - Class	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!
Permeability - mm/hr	NT	NT	NT	#DIV/0!	NT	NT	1	1.00	1	1	1	1.00	1	1	1	1.00
Exchangeable Calcium - mg/kg	511	1350	1590	1150.33	726	1610	3260	1865.33	1630	2440	2610	2226.67	1510	2650	2910	2356.67
Exchangeable Magnesium - mg/kg	44.1	121	352	172.37	48.9	407	1680	711.97	326	992	1850	1056.00	276	625	848	583.00
Exchangeable Potassium - mg/kg	164	201	250	205.00	157	293	583	344.33	213	269	318	266.67	421	491	527	479.67
Exchangeable Sodium - mg/kg	279	395	671	448.33	293	736	1890	973.00	457	986	1440	961.00	429	852	1260	847.00
Available Nitrate - mg/kg	27	15	12	18.00	13	17	20	16.67	16	15	4.6	11.87	54	25	24	34.33
Total Nitrogen - %	0.168	0.0575	0.0372	0.09	0.0953	0.0727	0.031	0.07	0.11	0.0915	10.1223	3.44	1.5979	0.207	0.222	0.68
Cadnium - mg/kg	0.7	1.4	1.5	1.20	1.2	1.7	2	1.63	0.6	1.4	1.3	1.10	0.7	0.5	1.5	0.90
Organic Carbon - %	1.5	0.3	0.2	0.67	1.2	0.5	0.2	0.63	1	0.4	0.8	0.73	0.9	0.4	1.3	0.87
Total Phosphorus - mg/kg	302	129	115	182.00	265	126	107	166.00	207	98.4	111	138.80	197	105	107	136.33
Chromium - mg/kg	59	25.8	25.6	36.80	36.7	32.7	32.3	33.90	18.1	24.5	22.1	21.57	31.6	20.5	24.1	25.40
Chromium VI- mg/kg	1	1	1	1.00	1	1	1	1.00	1	1	1	1.00	1	1	1	1.00
Total Sulfur (LECO) - %	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!
Available Phosphorus (Bray P) - mg/kg	34	3.3	2.2	13.17	22	2.5	7.3	10.60	25	7.6	4.7	12.43	32	7.5	6.4	15.30
Exchangeable Aluminium - mg/kg	58	82	5.8	48.60	17	1.9	1.2	6.70	12	23	1	12.00	4.9	6.8	2.6	4.77
SAR - SAR Units	6.69	3.65	6.06	5.47	8.9	14.18	16.96	13.35	6.3	9.14	9.98	8.47	4.84	7.1	11.59	7.84
Chloride - mg/kg	99	77	65	80.33	65	120	250	145.00	67	79	93	79.67	100	91	93	94.67
CEC - cmol/kg	4.5	9.9	14.4	9.60	5.7	15.3	39.9	20.30	13.6	25.8	35.4	24.93	12.9	23.5	28.5	21.63
ESP - %of ECEC	22	15	20	19.00	21	21	21	21.00	15	17	18	16.67	14	16	19	16.33

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ANALYSIS	IRRIGATION SECTOR 9				IRRIGATION SECTOR 10				IRRIGATION SECTOR 11				IRRIGATION SECTOR 12			
	0-10 cm	10-30 cm	30-60 cm	AVE	0-10 cm	10-30 cm	30-60 cm	AVE	0-10 cm	10-30 cm	30-60 cm	AVE	0-10 cm	10-30 cm	30-60 cm	AVE
pH - pH units	5.4	5.3	6.3	5.67	5.2	6.6	6.5	6.10	5.3	5.5	6	5.60	5.6	5.7	6.9	6.07
Electrical Conductivity µS/cm	300	280	530	370.00	390	440	510	446.67	380	400	510	430.00	300	400	330	343.33
TKN-N - mg/kg	1440	990	2360	1596.67	1570	680	450	900.00	4270	1410	910	2196.67	730	680	920	776.67
Available Phosphorus (Colwell P) - mg/kg	79	10	5.3	31.43	36	9.5	7.6	17.70	29	11	3.4	14.47	37	6.8	5.3	16.37
Emerson Aggregate Class - Class	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!
Permeability - mm/hr	1	1	1	1.00	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!
Exchangeable Calcium - mg/kg	1840	3220	3640	2900.00	514	1170	1000	894.67	1020	1540	1660	1406.67	583	1340	1330	1084.33
Exchangeable Magnesium - mg/kg	287	1060	2020	1122.33	7.61	13.7	252	91.10	150	657	1310	705.67	14.7	374	865	417.90
Exchangeable Potassium - mg/kg	351	578	752	560.33	174	126	212	170.67	358	372	301	343.67	221	343	298	287.33
Exchangeable Sodium - mg/kg	380	1130	2550	1353.33	148	434	602	394.67	352	644	910	635.33	227	421	663	437.00
Available Nitrate - mg/kg	27	9.1	3.4	13.17	49	17	18	28.00	46	31	44	40.33	36	37	9.6	27.53
Total Nitrogen - %	0.147	0.999	0.236	0.46	0.162	0.698	0.468	0.44	0.432	0.144	0.955	0.51	0.767	0.718	0.932	0.81
Cadnium - mg/kg	0.9	1.7	1.7	1.43	0.7	1.2	1.2	1.03	1.5	2	2	1.83	0.7	2	2	1.57
Organic Carbon - %	1.3	0.3	0.2	0.60	1.4	0.4	0.1	0.63	1.1	0.4	0.2	0.57	1.1	0.3	0.2	0.53
Total Phosphorus - mg/kg	264	113	99.5	158.83	279	107	94.8	160.27	264	103	112	159.67	248	112	112	157.33
Chromium - mg/kg	49.5	27.9	29.8	35.73	45.7	23.9	20.5	30.03	44.6	30.7	29.6	34.97	26.8	29.6	30.1	28.83
Chromium VI- mg/kg	1	1	1	1.00	1	1	1	1.00	1	1	1	1.00	1	1	1	1.00
Total Sulfur (LECO) - %	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!
Available Phosphorus (Bray P) - mg/kg	37	6.3	5	16.10	27	7.7	5.9	13.53	20	7.7	4.5	10.73	22	5.3	5.4	10.90
Exchangeable Aluminium - mg/kg	19	41	1.2	20.40	3.6	1.5	3.3	2.80	94	13	1.5	36.17	4.1	1.8	1.8	2.57
SAR - SAR Units	4.85	8.87	11.44	8.39	4.8	7.35	14.72	8.96	7.52	11.09	13.88	10.83	3.92	10.32	13.68	9.31
Chloride - mg/kg	77	58	34	56.33	98	86	98	94.00	75	110	170	118.33	69	130	92	97.00
CEC - cmol/kg	14.5	32	47.9	31.47	3.7	8.2	10.2	7.37	8.8	16.9	23.8	16.50	4.6	12.5	17.4	11.50
ESP - %of ECEC	11	15	23	16.33	17	23	25	21.67	15	16	17	16.00	21	15	17	17.67

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ANALYSIS	SLUDGE INJECTION AREA 1				SLUDGE INJECTION AREA 1B				SLUDGE INJECTION AREA 2				SLUDGE INJECTION AREA 3			
	0-10 cm	10-30 cm	30-60 cm	AVE	0-10 cm	10-30 cm	30-60 cm	AVE	0-10 cm	10-30 cm	30-60 cm	AVE	0-10 cm	10-30 cm	30-60 cm	AVE
pH - pH units	7.4	7.4	6.7	7.17	8	8.3	8	8.10	8	7.8	7.7	7.83	7.1	7.5	7.5	7.37
Electrical Conductivity µS/cm	310	260	170	246.67	190	130	130	150.00	250	180	210	213.33	100	94	70	88.00
TKN-N - mg/kg	2250	690	2520	1820.00	1260	450	930	880.00	1890	500	300	896.67	860	450	390	566.67
Available Phosphorus (Colwell P) - mg/kg	4.4	120	15	46.47	4	72	5.2	27.07	5.4	80	4.1	29.83	5	5.2	5.4	5.20
Emerson Aggregate Class - Class	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!
Permeability - mm/hr	4	1	1	2.00	1	1	NT	1.00	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!
Exchangeable Calcium - mg/kg	140	110	30	93.33	1620	626	1110	1118.67	1460	3980	1760	2400.00	1560	2490	3280	2443.33
Exchangeable Magnesium - mg/kg	1030	73.8	872	658.60	719	80.1	276	358.37	751	25.9	389	388.63	580	618	1680	959.33
Exchangeable Potassium - mg/kg	212	320	314	282.00	240	260	83.7	194.57	172	335	169	225.33	159	187	386	244.00
Exchangeable Sodium - mg/kg	108	15	129	84.00	88.9	15	49.3	51.07	111	114	53	92.67	78.2	110	250	146.07
Available Nitrate - mg/kg	66	85	17	56.00	16	16	2.2	11.40	57	38	16	37.00	11	8	1.6	6.87
Total Nitrogen - %	0.232	0.776	0.254	0.42	0.128	0.456	0.933	0.51	0.195	0.538	0.316	0.35	0.872	0.458	0.392	0.57
Cadnium - mg/kg	0.7	0.5	0.5	0.57	0.9	1.5	0.5	0.97	0.5	0.5	1.9	0.97	0.8	0.5	0.5	0.60
Organic Carbon - %	1.9	7	0.4	3.10	1.7	0.4	0.4	0.83	1.9	0.4	0.4	0.90	1	0.4	0.4	0.60
Total Phosphorus - mg/kg	524	144	75	247.67	264	117	90.8	157.27	420	95.6	102	205.87	289	111	100	166.67
Chromium - mg/kg	131	60.3	30	73.77	153	43.7	29.8	75.50	68.6	23.5	30.7	40.93	18.9	22.7	23.5	21.70
Chromium VI- mg/kg	1	1	1	1.00	1	1	1	1.00	1	1	1	1.00	1	1	1	1.00
Total Sulfur (LECO) - %	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!
Available Phosphorus (Bray P) - mg/kg	1.4	140	8.1	49.83	1.5	59	2.1	20.87	1.8	84	2.2	29.33	1.2	2.1	1.8	1.70
Exchangeable Aluminium - mg/kg	1	1	1	0.00	1	3.1	1	1.70	1	1	1	1.00	1	1.2	1	1.07
SAR - SAR Units	0.24	0.47	1.5	0.74	0.32	0.84	1.7	0.95	0.34	0.8	2.9	1.35	0.33	1	1.2	0.84
Chloride - mg/kg	21	12	10	14.33	21	13	13	15.67	16	17	20	17.67	19	31	30	26.67
CEC - cmol/kg	21.6	27.2	19.4	22.73	15	4.5	8.2	9.23	14.4	21.4	12.6	16.13	13.3	8.2	14.4	11.97
ESP - %of ECEC	2.2	0.1	2.9	1.73	2.5	0.3	2.5	1.77	3.3	2.3	1.8	2.47	2.5	2.5	3.3	2.77

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ANALYSIS	SLUDGE INJECTION AREA 4				SLUDGE INJECTION AREA 5			
	0-10 cm	10-30 cm	30-60 cm	AVE	0-10 cm	10-30 cm	30-60 cm	AVE
pH - pH units	7.4	7.5	7.4	7.43	7.7	7.4	7.4	7.50
Electrical Conductivity µS/cm	280	110	130	173.33	140	79	60	93.00
TKN-N - mg/kg	1170	330	620	706.67	1020	420	320	586.67
Available Phosphorus (Colwell P) - mg/kg	80	4.1	5	29.70	73	9.8	9.9	30.90
Emerson Aggregate Class - Class	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!
Permeability - mm/hr	NT	NT	NT	#DIV/0!	1	1	1	1.00
Exchangeable Calcium - mg/kg	8920	3940	3500	5453.33	3390	3480	3290	3386.67
Exchangeable Magnesium - mg/kg	58.1	897	1300	751.70	118	550	1190	619.33
Exchangeable Potassium - mg/kg	750	379	356	495.00	499	370	385	418.00
Exchangeable Sodium - mg/kg	255	119	175	183.00	28.4	58.2	116	67.53
Available Nitrate - mg/kg	32	6.3	2.2	13.50	9.3	9.6	1.5	6.80
Total Nitrogen - %	0.12	0.337	0.623	0.36	0.103	0.43	0.322	0.29
Cadnium - mg/kg	0.5	0.5	0.5	0.50	0.5	0.5	0.5	0.50
Organic Carbon - %	1.3	0.3	0.3	0.63	1.1	0.3	0.3	0.57
Total Phosphorus - mg/kg	234	98.8	134	155.60	267	85.8	85.5	146.10
Chromium - mg/kg	29.7	21.1	25.3	25.37	19.2	19.5	26	21.57
Chromium VI- mg/kg	1	1	1	1.00	1	1	1	1.00
Total Sulfur (LECO) - %	NT	NT	NT	#DIV/0!	NT	NT	NT	#DIV/0!
Available Phosphorus (Bray P) - mg/kg	84	2.2	1.2	29.13	83	7.9	5.7	32.20
Exchangeable Aluminium - mg/kg	1.1	1	1	1.03	1.1	1	1	1.03
SAR - SAR Units	6.4	0.96	1	2.79	0.2	0.56	0.94	0.57
Chloride - mg/kg	35	40	13	29.33	11	23	20	18.00
CEC - cmol/kg	21.4	12.6	13.3	15.77	19.3	23.1	27.7	23.37
ESP - %of ECEC	2.3	1.8	2.5	2.20	0.6	1.1	1.8	1.17