

Effect of Rate and Source of Phosphorus and S on Growth of Subclover--Grass Pasture. Tom Furlong, Tammes, Martin County

Material	Nutrients		Clover		Grass		Total		Yield: Dry Matter Pounds/Ac.	Yield: Dry Matter lbs/Ac.	Treatments 10/1/68
	P ₂ O ₅	S	Clover	Grass	Clover	Grass	Clover	Grass			
None	--	--	451	1531	18	1158	1176	86	1045	1431	5/13/69 Wet Year First Year Results 1969
430 lbs. Triple	228	--	1753	1801	64	1635	1699	226	1263	1489	
311 lbs. CSPS	118	62	2049	1473	170	1681	1850	111	1058	1169	5/12/71 Third Year Dry Early 1971
715 lbs. Super	143	85	1842	1910	170	1747	1917	289	1425	1714	
622 lbs. CSPS	236	124	2864	1994	225	1758	2007	137	1304	1441	5/13/69 Wet Year First Year Results 1969
1430 lbs. Super	286	171	2717	1886	251	1752	1979	705	1266	1971	
1244 lbs. CSPS	472	248	3410	2275	316	2085	2400	370	1407	1777	5/12/71 Third Year Dry Early 1971
2860 lbs. Super	572	343	3218	1875	450	1859	2309	1027	1205	2232	
L.S.D. (5%)			643	n.s.	158	488	655	287	227	362	
C.V.			19.0%		93%	19.4	22.5%	53.0%	12.4	15.2	

CSPS
Sulfur fortified triple (Simplot) 0-38-0-20-S-5
Super
Single Superphosphate (Stauffer) 0-20-0-12 SO₄-S
Triple
Concentrate Superphosphate (TVA) 0-53-0-0

EFFECT OF RATE AND SOURCE OF PHOSPHORUS AND S
ON GROWTH OF SUBCLOVER - GRASS PASTURE
Tom Furlong - Tamales - Marin County 1969

FIRST YEAR RESULTS

COMPOSITION OF CLOVER LEAVES	Yields: Dry Matter Pounds/Ac		Nutrients			Material
	Clover	Grass	Total	P ₂ O ₅ (P)	S	
						None
.11	1985	1531	451	-	-	450 lbs Treble
.20	3544	1801	1753	62	100	311 lbs CSFS
.168	3522	1473	2049	143	62	715 lbs S.Super
.19	4857	1994	2864	236	103	622 lbs CSFS
.21	4605	1886	2717	286	124	1450 lbs S.Super
.22	5593	2275	3410	472	206	1244 lbs CSFS
.21	5072	1875	3218	572	250	2860 lbs S.Super
	883	n.s.	643			L.S.D. (5%)
	14.5%		19.0%			C.V.

CSFS = Sulfur fortified treble (Simpliot) 0-38-0-20 S-S

S.Super = Single Superphosphate (Stauffer) 0-20-0-12 SO₄-S

Treble = Concentrate Superphosphate (TVA) 0-53-0-0

JAN 12 1972

AGRICULTURAL EXTENSION LABORATORY
 REPORT OF ANALYSIS

Number: P-7175-D
 Date sampled: 5/12/71
 Date submitted: 6/4/71
 Date reported: 12/30/71

County: Marin
 Submitted by: W. E. Martin
 Identification: Fullong - Kange Fertilization

96 SAMPLES

Sample No.	Dry Weight	SO ₄ -S	P	Sample No.	Dry Weight	SO ₄ -S	P	Sample No.	Dry Weight	SO ₄ -S	P
1	9.9	360	0.26	26	Blades	7.9	5.4	26	2.7	28	0.23
2	4.8	896	0.21	27	Blades	7.9	5.4	27	2.7	28	0.23
3	5.8	256	0.23	28	Blades	5.0	4.2	28	2.9	29	0.21
4	3.9	716	0.21	29	Blades	4.2	4.1	29	3.1	30	0.20
5	4.4	160	0.20	30	Blades	4.1	6.1	30	3.1	31	0.23
6	3.6	328	0.23	31	Blades	6.1	7.9	31	3.2	32	0.14
7	3.6	240	0.14	32	Blades	7.9	112.8	32	3.3	33	0.22
8	4.8	116	0.22	33	Grass - 1	112.8	112.6	33	3.4	34	0.25
9	5.9	120	0.25	34	Grass - 1	112.6	80.3	34	3.5	35	0.23
10	6.7	1200	0.23	35	Grass - 1	80.3	151.0	35	3.6	36	0.23
11	3.1	952	0.23	36	Grass - 1	151.0	163.3	36	3.7	37	0.22
12	5.6	136	0.22	37	Grass - 1	163.3	155.5	37	3.8	38	0.21
13	2.4	548	0.21	38	Grass - 1	155.5	167.7	38	3.9	39	0.19
14	3.4	416	0.19	39	Grass - 1	167.7	204.6	39	4.0	40	0.16
15	4.2	368	0.16	40	Grass - 1	204.6	126.4	40	4.1	41	0.19
16	5.2	228	0.19	41	Grass - 1	126.4	180.0	41	4.2	42	0.25
17	9.9	224	0.25	42	Grass - 1	180.0	189.0	42	4.3	43	0.18
18	6.0	868	0.18	43	Grass - 1	189.0	134.8	43	4.4	44	0.19
19	2.4	748	0.19	44	Grass - 1	134.8	199.5	44	4.5	45	0.21
20	3.2	340	0.21	45	Grass - 1	199.5	181.0	45	4.6	46	0.22
21	5.6	1272	0.22	46	Grass - 1	181.0	198.5	46	4.7	47	0.34
22	3.4	656	0.34	47	Grass - 1	198.5	158.0	47	4.8	48	0.13
23	6.0	368	0.13	48	Grass - 1	158.0	85.5	48	4.9	49	0.21
24	4.6	440	0.21	49	Grass - 1	85.5	216.7	49	5.0	50	0.19
25	6.9	300	0.19	50	Grass - 1	216.7	1272	50	5.1	51	0.26
	8										
	ppm		%								
	Dry Weight	SO ₄ -S	P								
			%								

AGRICULTURAL EXTENSION LABORATORY
 REPORT OF ANALYSIS

JAN 12 1972

Number: P-7175-D
 Date sampled: 6/4/71
 Date submitted: 12/30/71
 Date reported:

County: Martin
 Submitted by: W. E. Martin
 Identification: Furlong

Sample No.	Dry Weight	SO ₄ -S ppm	N %	Sample No.	Dry Weight
51	Grass -19	175.0	1.53	76	Clover -12
52	20	124.8	1.78	77	6.1
53	21	139.3	1.65	78	24.1
54	22	72.0	1.86	79	7.1
55	23	160.4	1.70	80	8.6
56	24	131.8	1.80	81	21.4
57	25	98.9	1.71	82	23.4
58	26	136.7	1.90	83	2.4
59	27	135.8	1.75	84	11.9
60	28	73.4	1.81	85	26.0
61	29	111.2	1.68	86	78.0
62	30	167.0	1.61	87	9.4
63	31	119.4	1.68	88	42.1
64	32	59.9	1.91	89	28.7
65	Clover - 1	63.4		90	30.0
66	2	22.4		91	18.4
67	3	32.5		92	63.1
68	4	7.6		93	18.0
69	5	26.9		94	16.0
70	6	14.6		95	43.8
71	7	6.3		96	82.8
72	8	14.1			
73	9	29.6			
74	10	27.0			
75	11	4.3			

AUG 20 REC'D

REPORT OF PLANT TISSUE ANALYSIS
 FERTILITY ASSAY

AGRICULTURAL EXTENSION LABORATORY

No. P-5804-D
 Date submitted: 5/13/69
 Date reported: 8/18/69
 Date sampled: 5/12/69

County: Marin
 Submitted by: M. E. Martin

Location: Fulton - Tomales Bay

Sample No.	Description	NO ₃ -N ppm	PO ₄ -P ppm	SO ₄ -S ppm	N %	P %	K %	Ca %	Mg %	No %	Cl %	B ppm	Zn ppm
1	2860 Super - 2860 Super	520	550	520	0.21	1.09	1.09						
2	1274 CSFS	520	550	520	0.21	1.09	1.09						
3	1430 Super	630	630	630	0.20	1.35	1.35						
4	622 CSFS	400	400	400	0.20	1.40	1.40						
5	715 Super	310	310	310	0.18	1.34	1.34						
6	311 CSFS	250	250	250	0.14	1.56	1.56						
7	Check	180	180	180	0.20	1.34	1.34						
8	430 Treble	560	560	560	0.20	0.98	0.98						
9	2860 Super	680	680	680	0.22	1.07	1.07						
10	1274 CSFS	400	400	400	0.16	1.20	1.20						
11	622 CSFS	350	350	350	0.21	1.16	1.16						
12	1430 Super	370	370	370	0.15	1.12	1.12						
14	715 Super	425	425	425	0.20	1.20	1.20						
15	Check	280	280	280	0.10	1.20	1.20						
16	430 Treble	280	280	280	0.19	1.26	1.26						
17	1430 Super	470	470	470	0.19	1.00	1.00						
18	622 CSFS	500	500	500	0.20	1.18	1.18						
19	311 CSFS	310	310	310	0.17	1.18	1.18						
20	715 Super	350	350	350	0.19	1.14	1.14						
21	1274 CSFS	710	710	710	0.23	1.07	1.07						
22	2860 Super	540	540	540	0.22	0.90	0.90						

Dr. Martin has dry weights

-continued-

S. S. Rice & Sonce Experiment

Range

REPORT OF PLANT TISSUE ANALYSIS

AGRICULTURAL EXTENSION LABORATORY

FERTILITY ASSAY

County: Martin
Submitted by: W. E. Martin

No. P-5804-D
Date submitted: 5/13/69
Date reported: 8/18/69

Identification:

Element	Description	ppm	ppm	%	%	%	%	%	%
Nitrate	Check - Blades	490	0.11	1.41					
	430 Table	430	0.22	1.23					
	715 Super	340	0.18	1.14					
	311 GSFS	425	0.17	0.90					
	622 GSFS	---	---	---					
	1430 Super	470	0.23	1.22					
	430 Table	310	0.18	1.26					
	Check	385	0.10	1.32					
	1244 GSFS	1170	0.23	1.10					
	2860 Super	425	0.23	0.96					
	2860 Super - Heading Grass	2230	1.62	1.71					
	1244 GSFS	1230	1.71	1.71					
	1430 Super	1720	1.69	1.69					
	622 GSFS	1110	1.85	1.85					
	715 Super	1480	1.64	1.64					
	311 GSFS	1000	1.84	1.84					
	Check	650	1.63	1.63					
	430 Table	785	1.60	1.60					
	2860 Super	2000	1.71	1.71					
	1244 GSFS	1450	1.86	1.86					
	622 GSFS	1260	1.70	1.70					
	1430 Super	1450	1.81	1.81					
	311 GSFS	1260	1.61	1.61					

-continued-

REPORT OF PLANT TISSUE ANALYSIS
 FERTILITY ASSAY

AGRICULTURAL EXTENSION LABORATORY

County: Martin
 Submitted by: W. E. Martin

No. P-5804-D
 Date submitted: 5/13/69
 Date reported: 8/18/69

Location:

Sample No.	Description	NO ₃ -N ppm	PO ₄ -P ppm	SO ₄ -S ppm	N %	P %	K %	Ca %	Mg %	No %	Cl %	B ppm	Zn ppm
46	Harling Cross - 715 Super	1390	800	1.80	1.58	1.40	1.68	1.51	1.20	1.55	1.290	311 GSPS	51
47	Check		800	1.58	1.40	1.68	1.51	1.20	1.55	1.290	311 GSPS	50	
48	430 Treble		860	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	715 Super	52
49	1430 Super		1200	1.53	1.200	1.200	1.200	1.200	1.200	1.200	1.200	311 GSPS	51
50	622 GSPS		1200	1.53	1.200	1.200	1.200	1.200	1.200	1.200	1.200	715 Super	52
51	311 GSPS		1390	1.72	1.390	1.390	1.390	1.390	1.390	1.390	1.390	1244 GSPS	53
52	715 Super		1390	1.72	1.390	1.390	1.390	1.390	1.390	1.390	1.390	1244 GSPS	53
53	1244 GSPS		1390	1.72	1.390	1.390	1.390	1.390	1.390	1.390	1.390	1244 GSPS	53
54	2860 Super		1390	1.72	1.390	1.390	1.390	1.390	1.390	1.390	1.390	1244 GSPS	53
55	Check		1200	1.53	1.200	1.200	1.200	1.200	1.200	1.200	1.200	715 Super	52
56	430 Treble		860	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	311 GSPS	58
57	715 Super		790	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	622 GSPS	59
58	311 GSPS		1420	1.87	1.420	1.420	1.420	1.420	1.420	1.420	1.420	1430 Super	60
59	622 GSPS		1355	1.78	1.355	1.355	1.355	1.355	1.355	1.355	1.355	430 Treble	61
60	1430 Super		1140	1.52	1.140	1.140	1.140	1.140	1.140	1.140	1.140	Check	62
61	430 Treble		1080	1.63	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1244 GSPS	63
62	Check		1140	1.92	1.140	1.140	1.140	1.140	1.140	1.140	1.140	2860 Super	64
63	1244 GSPS		1420	1.75	1.420	1.420	1.420	1.420	1.420	1.420	1.420		
64	2860 Super		1790	1.61	1.790	1.790	1.790	1.790	1.790	1.790	1.790		

Sample 27 missing

AGRICULTURAL EXTENSION LABORATORY
REPORT OF SOIL ANALYSIS
FERTILITY ASSAY

Country: Marin
 Submitted by: W. E. Martin
 Identification: Point Reyes Station - Tom Furtong
 No. S-3822-D
 Date submitted: 10/8/68
 Date reported: 11/4/68
 Soil Type: --

Sample No.	Description	SP	pH _s	EC _e	P	K	Zn
	Site of range fert. plot set-up 10/1/68	%	mhos/cm.	ppm soil	ppm soil	ppm soil	ppm soil
1		4.9	5.6	210	3.9*		

* Zn determined by EDTA
 Critical level 1.2 ppm

M. J. Berry