

JUL 22 Rec'd (1)

UNIVERSITY OF CALIFORNIA
AGRICULTURAL EXTENSION SERVICE

Date: July 19, 1968
To: William H. Brooks, III
Mendocino County Director and Farm Advisor

DAVIS, CALIFORNIA

From: William E. Martin
Title: Extension Soils Specialist
Re:

Dear Bill:

Enclosed is a typed copy of the yield data from the McGuire plot above Fort Bragg. You will note that yields this year were only about half what we had last year. We harvested the plot three weeks earlier this year.

The separation data are most interesting. We had a good increase in grass where production of clover was good last year. It's too bad we didn't get species separation of species last year.

You note that we probably had a molybdenum response on the clover fraction this year. We will have J. Quick give us some molybdenum rates on the clover along with PO_4 -P and SO_4 -S.

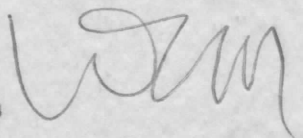
I am enclosing Xerox copies of the analysis of variance of yield data and separations.

Perhaps we may have to run harvest here again next year.

We got:	1967	5388	-	4222	=	1166
	1968	3299	-	1983	=	1316
						<u>2476 lbs/acre</u>

From the 500 lbs super @ \$45/ton = \$11.25
At \$45.00/ton this was \$11.25 fertilizer cost for 2476 lbs of forage or about \$9.00 per ton, not too bad.

Sincerely yours,

WEM:mv 

Enclosures

cc: L. J. Berry
J. E. Street ✓

McGUIRE - MENDOCINO COAST

FORT BRAGG

<u>Treatment</u>	<u>Yields Dry Matter Lbs/Acre</u>			
	Total 1967 May 29	Total 1968 May 8	Clover 1968	Grass 1968
Check	4222	1983	403	1639
Gypsum	4373	2156	314	1843
Sulfur	4269	2129	411	1718
TSP	5278	2996	789	2206
S Super	5388	3299	914	2385
P S	5777	3178	692	2485
P S Mo	5305	3334	1047	2288
P S Mo + K	5382	3340	1185	2155
LSD	661	389	302	424

McGUIRE - MENDOCINO COUNTY 1967

Harvested March 29, 1967

<u>Treatment</u>	<u>Yield Fresh Lb/Ac</u>	<u>% Dry Matter</u>	<u>Yield Dry lb/Ac.</u>
Check	22,058	19.3	4222
Gypsum	23,416	16.7	4373
Sulfur	26,520	18.3	4269
Aver. No P	24,000		4288
<hr/>			
T S P	35,250	15.2	5278
S Super	35,600	14.4	5388
Ps	37,950	15.4	5777
Ps Mo	35,350	15.8	5365
Ps Mo + K	39,890	13.6	5382
Aver. + P	36,800 (153%)		5438 (127%)
<hr/>			
L S D	6732	2.1	661
C V	12.0%	7.6%	7.5%
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Mcguire - Ft Bragg - Mandocino

copy
Mist

Yield of Dry Malt

Treat	lbs / 250 ft ²			Σ x58
	I	II	III	
ck	14.31	11.70	9.18	35.19
Gyp	12.62	12.57	11.99	3718
Sulfur	12.17	12.59	11.94	3670
TSP	19.61	15.93	16.11	5165
Sulfur	21.76	18.45	16.67	5688
PS	19.19	19.15	16.46	5480
PSmo	21.88	19.04	16.57	5749
PSmoK	21.28	20.53	15.78	5759
Σ	14282	12996	11470	38748 ± 671

Yield Dry wt lbs/acre	Relative Yield %
1983	100
2156	109
2129	107
2996	151
3299	166
3178	160
3334	168
3340	168
Σ 389	Σ 20

Total	65,708,454			
Con	62,558,646	3,149,808	23	
Reps	63,054,055	495,409	2	
Treat	64,984,612	2,425,966	7	346,566
Σ		228,433	14	16,316

L.S.D. = $\sqrt{\frac{2}{3} \cdot 16316} \times 2.145$

$\sqrt{10877} \times 2.145$

$104291 \times 2.145 = 223.7 \times 3 = 671 \times 389$

Between Means Sums

F

21.24**

McGuire - FT Biagg - Mendocino

copy x 580
Klett

Treatment	Yield q (ma) lbs/acott ²				AV Yield lbs/Ac	Relative Yield %
	I	II	III	E		
ch	11.99	9.01	7.25	2825	1639	100
Gypsum	11.32	10.29	10.16	31.77	1843	112
Sulfur	9.93	10.08	9.61	29.62	1718	105
TSP	16.41	10.34	11.29	38.04	2206	135
Super	17.25	12.60	11.27	4112	2385	145
PS	15.54	14.27	13.05	4286	2486	152 =
PSmo	15.99	13.44	10.01	3944	2288	140
PSmo+K	15.79	10.55	10.81	3715	2155	131
Total	11472	9058	8345	28825	± 424	± 26%

Total	36,237,449				
corn	34,620,026	1,617,423	23		
Reps	35,268,559	648,533	2	324,267	16.73**
Treats	35,317,505	697,479	7	99,639	5.13**
Error		291,411	14	19,386	

$$LSD = \sqrt{\frac{7}{3} \cdot 19386 + 2145} = \sqrt{129,24 + 2145} = \sqrt{2274} = 47.68$$

$$= 113.684 \times 2145 = 24385 \times 3 = 731$$

between means Sums

Mginc 77 Bratz

copy 248 Newt

	Yield of clover lbs/acre				Σ x 58	Yield Dry wt. lbs/acre	Relative Yield %
	I	II	III				
ch	2.32	2.69	1.93	694	403	100	
Gypsum	1.30	2.28	1.83	541	314	78	
Sulfur	2.24	2.51	2.33	708	411	102	
TSP	3.20	5.59	4.82	1361	789	196	
Super	4.51	5.85	5.40	1576	914	227	
PS	3.65	4.88	3.41	1194	692	172	
PSmo	5.89	5.60	6.56	1805	1047	260	
PSmoK	5.49	9.98	4.97	20.44	1185	294	
	<u>2860</u>	<u>3938</u>	<u>3125</u>	<u>9923</u>	±302	±75%	

	SS	DF	MS	F
Total	5,040,625			
Con	4,102,747	937,878	23	
Reps	4,181,633	78,886	2	
Treats	4,824,426	721,678	7	103,096 10.51 **
Σ error		137,314	14	9,808

$LSD = \sqrt{\frac{2}{3} \cdot 9808} \approx 2.145$
 $\sqrt{6539}$
 $80.864 \times 2.145 = 173.4 \times 3 = 5.20 \times 58 = 302 \quad 75\%$

	SS	DF	MS	F
Subtotal PS	13,747,950			
PSmo	3,646,518	101,432	1	101,432 → 10.34 need 4.6

PS
PSmo

L. J. Berry

UNIVERSITY OF CALIFORNIA
AGRICULTURAL EXTENSION SERVICE

AGRICULTURAL EXTENSION LABORATORY
REPORT OF PLANT TISSUE ANALYSIS
FERTILITY ASSAY

County: Mendocino
Submitted by: W. E. Martin
Identification: McGuire - Ft. Bragg

No. P-4965-D
Date submitted: 5/9/68
Date reported: 8/25/68
Date sampled: 5/8/68

Sample No.	Description	Net Dry Wt	NO ₃ -N	PO ₄ -P	SO ₄ -S	N	P	K	Ca	Mg	Na	Cl	B	Zn		
		g	ppm	ppm	ppm	%	%	%	%	%	%	%	ppm	ppm		
1	Clover Plot 1	26.0		1407	780		0.27									
2	Grass 1	172.7														
3	C 2	31.5		737	465		0.12									
4	G 2	162.6														
5	C 3	34.3		1072	660		0.20									
6	G 3	131.5														
7	C 4	15.5		804	640		0.12									
8	G 4	135.5														
9	C 5	25.2		1407	610		0.21									
10	G 5	129.0														
11	C 6	29.4		1608	900		0.23									
12	G 6	125.7														
13	C 7	44.6		1407	810		0.20									
14	G 7	121.0														
15	C 8	33.9		938	780		0.17									
16	G 8	97.7														
17	C 9	24.1		804	970		0.14									
18	G 9	106.7														
19	C 10	27.8		871	1000		0.14									
20	G 10	126.2														
21	C 11	39.4		1273	970		0.21									
22	G 11	85.0														
23	C 12	39.5		1340	1290		0.22									
24	G 12	95.0														
25	C 13	76.6		1072	890		0.13									
26	G 13	81.1														

-cont.-

