

THE DOLLING PLOT

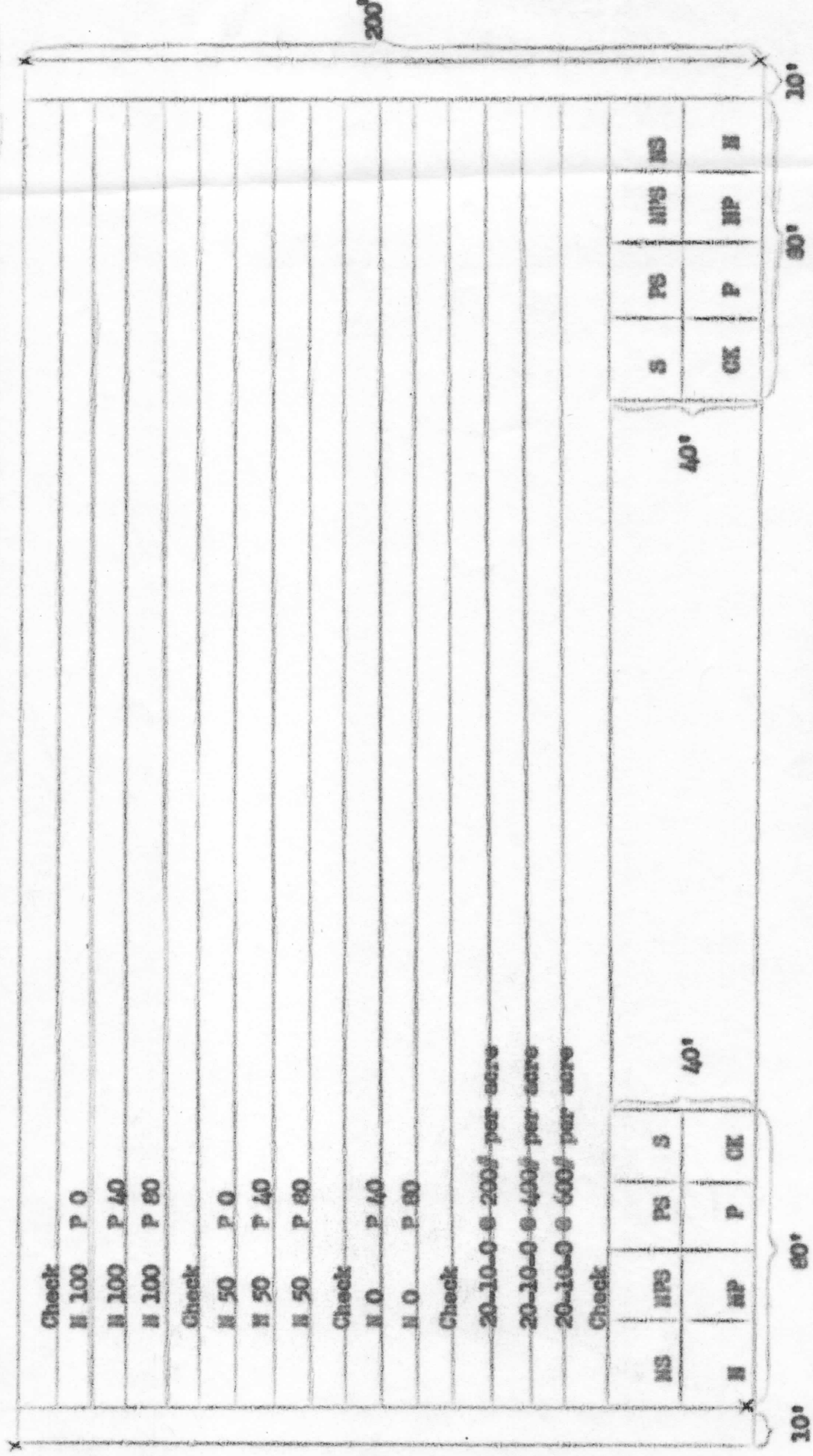
The Dolling range fertilizer trial was established on December 6, 1957. Plot diagram is as attached. This is Snelling sandy loam with a pH of 6.8, the phosphate content was 101# /A 6". This land is rolling hill type land near the LaGrange area about 15 miles south of the Bruncker trial. There are a few oak trees on the land but mostly it is open land. The harvest of the plots was as follows:

The first clipping was on March 5, 1958, second clipping on April 10, 1958, third clipping May 19, 1958. The attached graphs shows the results of these clippings calculated on a per acre basis.

Fence



Road



200'

100'

40'

80'

10'

80'

Exploratory plot

Exploratory plot

Range Fertilization
Dolling Plot Layout

Put out December 6, 1957

Each strip 10' wide X 654' long or 3/20 acre



N

Pounds
Green Weight
Per Acre

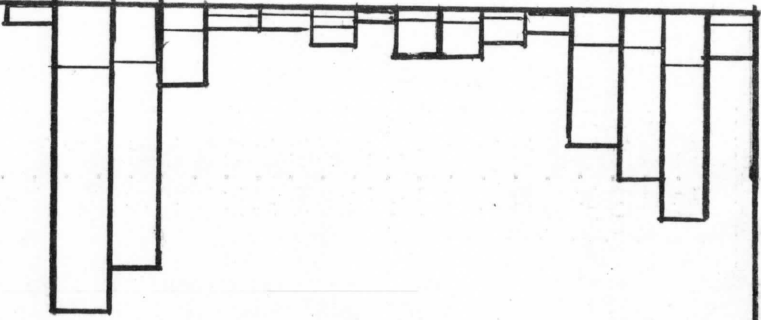
16000
15000
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000

CHECK
N100 P0
N100 P40
N100 P80
CHECK
N50 P0
N50 P40
N50 P80
CHECK
NO P40
NO P80
CHECK

The Lower Line on each bar indicates total
dry weight per acre

T R E A T M E N T S

20-10-0 @ 200# /acre
20-10-0 @ 400# /acre
20-10-0 @ 600# /acre
CHECK



Bolling Range Fertilizer Trial
1st Clipping - March 6, 1958
Each strip 42" X 100'

DOLLING RANGE FERTILIZER TRIAL

1st Clipping March 6, 1958

Each Strip 42" X 100' (1/124 Acre)

<u>Treatment</u>	<u>Net Wt. of Strip Clippings</u>	<u>% Moisture</u>	<u>Projected Green Wt./Acre</u>
1. Check	8.00 lbs.	76.26	992 lbs.
2. N100 P0	49.00	81.20	6076
3. N100 P40	38.25	82.56	4743
4. N100 P80	32.00	80.99	3968
5. Check	3.50	77.97	434
6. N50 P0	7.50	78.93	930
7. N50 P40	8.00	74.46	992
8. N50 P80	8.00	78.15	992
9. Check	1.25	70.85	155
10. NO P40	5.00	79.01	620
11. NO P80	4.00	76.74	496
12. Check	4.00	72.45	496
13. 20-10-0 @ 200 #/Acre	18.00	77.28	2232
14. 20-10-0 @ 400 #/Acre	53.50	78.67	6634
15. 20-10-0 @ 600 #/Acre	65.00	79.55	8060
16. Check	2.50	70.00	310

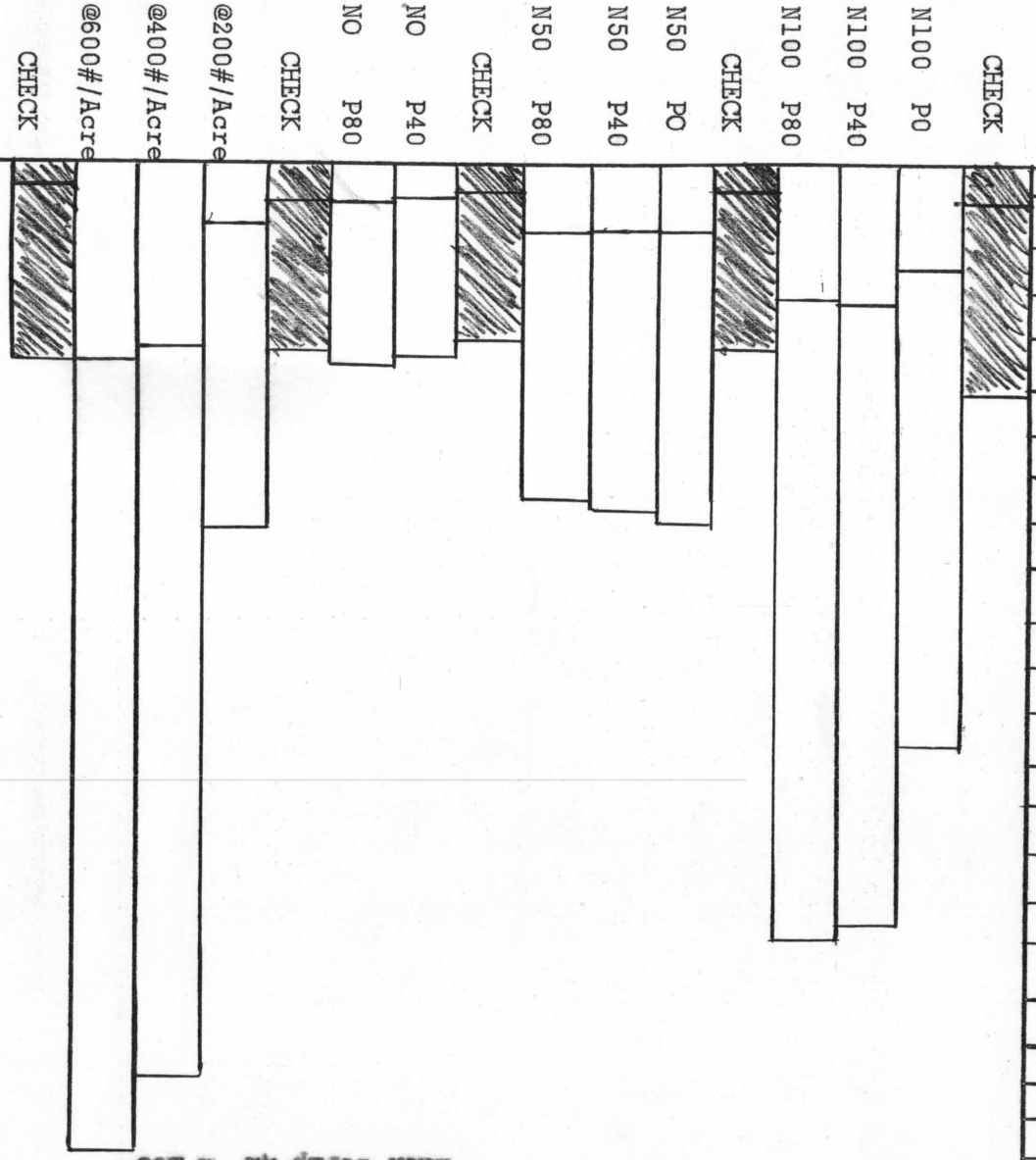
Average Moisture for Checks	73.50
Average Moisture on N Treatments	80.06
Average Moisture on P Treatments	77.87
Average on NP Treatments	79.04
Average on 20-10-0 Treatments	78.50

Pounds Green Wt. Per Acre

22000
21000
20000
19000
18000
17000
16000
15000
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000

Each Strip 42" X 100'

Dolling Range Fertilizer Trial
2nd Clipping - April 10, 1958



The lower line on each bar indicates total dry weight per acre

TREATMENT

CHECK
N100 P0
N100 P40
N100 P80
CHECK
N50 P0
N50 P40
N50 P80
CHECK
NO P40
NO P80
CHECK
20-10-0 @200#/Acre
20-10-0 @400#/Acre
20-10-0 @600#/Acre
CHECK

DOLLING RANGE FERTILIZER TRIAL

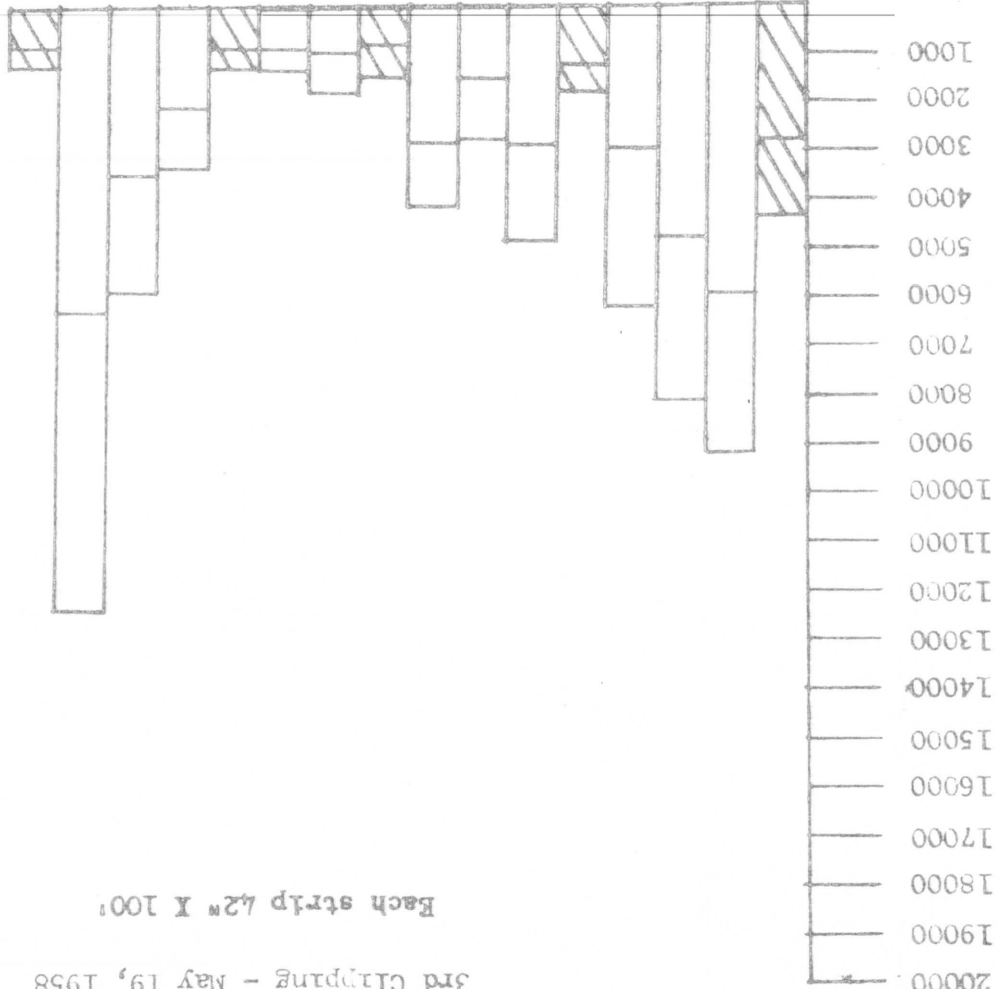
2nd Clipping April 10, 1958
Each strip 42" X 100'

	<u>Net Weight of Clipped Strip</u>	<u>% Moisture</u>	<u>% Dry Matter</u>	<u>Green Wt./Acre</u>	<u>Dry Wt./Acre</u>
1. Check	41.00	77.89	22.11	5084	1124.07
2. N100 P0	104.50	80.53	19.47	12958	2522.92
3. N100 P40	134.00	80.02	19.98	16616	3319.87
4. N100 P80	135.00	80.37	19.63	16740	3286.06
5. Check	32.50	76.37	23.63	4030	952.28
6. N50 P0	64.00	77.44	22.56	7936	1790.36
7. N50 P40	63.00	77.91	22.09	7812	1725.67
8. N50 P80	62.50	77.59	22.41	7750	1736.77
9. Check	34.00	76.64	23.36	4216	984.85
10. NO P40	37.00	77.52	22.48	4588	1031.38
11. NO P80	40.00	75.85	24.15	4960	1197.84
12. Check	37.00	74.50	25.50	4588	1169.94
13. 20-10-0 @ 200# /Acre N40 P20	66.00	78.81	21.19	8184	1734.18
14. 20-10-0 @ 400# /Acre N80 P40	159.00	79.63	20.37	19716	4016.14
15. 20-10-0 @ 600# /Acre N120 P60	175.00	79.35	20.65	21700	4481.05
16. Check	38.00	80.80	19.20	4712	904.70

Pounds Green Wt. Per Acre

Each strip 42" X 100'

Dolling Range Fertilizer Trial
3rd Clipping - May 19, 1958



The lower line on each bar indicates total dry weight per acre

TREATMENT

CHECK
N100 P0
N100 P40
N100 P80
CHECK
N50 P0
N50 P40
N50 P80
CHECK
N0 P40
N0 P80
CHECK
20-10-0 @200#/A
20-10-0 @400#/A
20-10-0 @600#/A
CHECK

DOLLING RANGE FERTILIZER TRIAL

3rd Clipping May 19, 1958

Each strip 42" X 100' (1/124 Acre)

<u>Treatment</u>	<u>Net Strip Wt.</u>	<u>% Moisture</u>	<u>Green Wt./Acre</u>	<u>% Dry Matter</u>	<u>Dry Matter/Acre</u>
1. Check	35.00 lbs.	33.61	4340 lbs.	66.39	2881 lbs.
2. N100 P0	74.75	35.65	9269	64.35	5964
3. N100 P40	65.00	40.52	8060	59.48	4794
4. N100 P80	50.00	52.44	6200	47.58	2949
5. Check	15.00	38.12	1860	61.88	1150
6. N50 P0	40.00	42.87	4960	57.13	2833
7. N50 P40	22.00	44.84	2728	55.16	1504
8. N50 P80	34.00	39.33	4216	60.67	2830
9. Check	12.00	33.06	1488	66.94	996
10. NO P40	15.00	37.87	1860	62.13	1155
11. NO P80	13.00	37.19	1599	62.81	1004
12. Check	13.00	38.45	1599	61.55	984
13. 20-10-0 @ 200#/A	28.00	35.05	3472	64.95	2255
14. 20-10-0 @ 400#/A	48.50	41.43	6014	58.57	3522
15. 20-10-0 @ 600#/A	101.00	49.77	1,2524	50.23	6290
16. Check	11.00	36.53	1364	63.47	865

THE BRUNKER TRIAL

The Bruncker range fertilizer trial was first established on November 15, 1957 on Rancharia Del Rio Estanislau in the Knights Ferry area of Stanislaus County. This trial was placed on Auburn stony clay. This range is somewhat more rugged and has considerably more oak trees on it than the Orvis trial and is due south of the Orvis trial about 15 miles. The pH of this soil is 5.5 and the phosphate analysis showed 41#P/A 6". Plot diagram is as follows:

These plots were clipped in the same manner as the Orvis trial with the first clipping being made on March 13, 1958, second clipping April 24, 1958, third clipping June 5, 1958. Attached are the graphs showing the results.

RANCHERO DEL RIO ESTANISLAUS

Bob Brunker

Range Fertilization Trial - November 15, 1957

Each 5 Trip
10' X 238'

These rates
are pounds
Total Material
per acre

These rates
are pounds of
actual N or
P per acre

		80				
		40	N	NP	P	Ck
			NS	NPS	PS	S
Check						
	20 - 20 - 0		@600# /acre			
	20 - 20 - 0		@400# /acre			
	20 - 20 - 0		@200# /acre			
Check						
	20 - 10 - 0		@600# /acre			
	20 - 10 - 0		@400# /acre			
	20 - 10 - 0		@200# /acre			
Check						
	N 50		P 0			22
	N 100		P 0			21
Check						
	N 0		P 40			20
	N 50		P 40			19
	N 100		P 40			18
Check						
	N 0		P 80			17
	N 50		P 80			16
	N 100		P 80			15
Check						
	N 0		P 40			14
	N 0		P 80			13
Check						
	N 50		P 0			12
	N 50		P 40			9
	N 50		P 80			8
Check						
	N 100		P 0			7
	N 100		P 40			6
	N 100		P 80			5
Check						
	N 100		P 0			4
	N 100		P 40			3
	N 100		P 80			2
	N 100 Check					1



Stakes on
South Side
of Each
Plot

BRUNKER RANGE FERTILIZER TRIAL

1st Clipping 3-13-58

Each strip 42" x 50' (1/249 acre)

<u>Treatment</u>	<u>Strip Wt.</u>	<u>% Moisture</u>	<u>Green Wt./A</u>	<u>%D.M.</u>	<u>D.M./Acre</u>
1. Check	4.50 lbs.	79.32 lbs.	1120 lbs.	50.68	231.61
2. N100 P80	42.00	83.50	10458	16.50	1725.57
3. N100 P40	45.00	91.67	13695	8.33	1140.79
4. N100 P0	25.00	83.01	6225	16.99	1057.62
5. Check	2.00	74.42	498	25.58	127.38
6. N50 P80	16.00	81.26	3984	18.74	746.60
7. N50 P40	30.00	81.88	7470	18.12	1353.56
8. N50 P0	10.00	80.36	2490	19.64	489.03
9. Check	4.00	78.60	996	21.40	213.14
10. NO P80	3.50	78.38	871	20.62	179.60
11. NO P40	4.00	76.57	996	23.43	233.36
12. Check	1.50	75.20	373	24.80	92.50
13. N100 P80	39.00	84.73	9711	15.27	1482.86
14. N50 P80	19.00	85.36	4731	14.64	692.61
15. NO P80	3.00	78.76	747	21.24	158.66
16. Check	1.50	77.50	373	22.50	83.92
17. N100 P40	39.50	85.91	9835	14.09	1385.75
18. N50 P40	22.00	83.39	5478	16.61	909.89
19. NO P40	3.50	82.69	871	17.31	150.77
20. Check	2.50	78.51	622	21.49	133.66
21. N100 P0	20.00	84.80	4980	15.20	1756.96
22. N50 P0	7.50	84.82	1867	15.18	283.41
23. Check	2.50	84.62	622	15.38	95.66
24. 20-10-0 @200# /A	9.50	84.74	2365	15.26	360.89
25. 20-10-0 @400# /A	49.50	87.20	12325	12.80	1577.60
26. Check	8.50	80.39	2116	19.61	414.94
27. 20-20-0 @200# /A	22.00	82.56	5478	17.44	955.36
28. 20-20-0@400#/A	52.50	89.52	13072	10.48	1369.94
29. 20-20-0@600#/A	47.50	85.72	11827	14.28	1688.90
30. Check	4.50	81.74	1120	18.26	204.51

Average Moisture for Checks	78.92
Average Moisture for N Treatments	73.24
Average Moisture on P Treatments	79.35
Average Moisture on NP Treatments	84.71
Average Moisture on 20-10-0 Treatments	85.97
Average Moisture on 20-20-0 Treatments	85.93

Pounds
Green
Weight
Per
Acre

16000
15000
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000

Rancharia Del Rio Estanslaus

Range Fertilization Trial

1st Clipping - March 13, 1958

Each strip 42 inches wide by 50 feet long

CHECK	10000
N100 P80	10500
N100 P40	13000
N100 P0	6500
CHECK	10000
N50 P80	4000
N50 P40	7000
N50 P0	3500
CHECK	10000
NO P80	3000
NO P40	3500
CHECK	10000
N100 P40	8500
N50 P40	4500
NO P40	3500
CHECK	10000
N100 P0	4000
N50 P0	3500
CHECK	10000
20-10-0 @200 #/A	10500
20-10-0 @400 #/A	11000
CHECK	10000
20-20-0 @200 #/A	5000
20-20-0 @400 #/A	11500
20-20-0 @600 #/A	10500
CHECK	10000

T R E A T M E N T S

The lower line on each bar indicates total dry weight per acre

BRUNKER RANGE FERTILIZATION TRIAL

2nd Clipping 4/24/58

Each Strip 42" X 50'

<u>Treatment</u>	<u>Strip Wt.</u>	<u>% Moisture</u>	<u>Green Wt./A</u>	<u>% D.M.</u>	<u>D.M./A</u>
1. Check	18 lbs.	71.73	4482 lbs.	28.27	1267 lbs.
2. N100 P80	45	71.13	11205	28.87	3234
3. N100 P40	53	70.80	12948	29.20	3780
4. N100 P0	41	70.74	10209	29.26	2987
5. Check	13	65.53	3237	34.47	1115
6. N50 P80	38	72.22	9462	27.78	2628
7. N50 P40	25	71.27	6225	28.73	1788
8. N50 P0	29	71.91	7221	28.09	2028
9. Check	14	68.45	3486	31.55	1099
10. NO P80	20	67.86	4980	32.14	1600
11. NO P40	19	67.73	4731	32.27	1526
12. Check	12	69.65	2988	30.35	906
13. N100 P80	56	74.08	13944	25.92	3641
14. N50 P80	34	70.97	8466	29.03	2457
15. NO P80	19	61.77	4731	38.23	1808
16. Check	8	68.72	1992	31.28	623
17. N100 P40	49	70.87	12201	29.13	3554
18. N50 P40	34	66.45	8466	33.55	2841
19. NO P40	15	64.40	3735	35.60	1329
20. Check	11	67.58	2739	32.42	888
21. N100 P0	30	70.25	7470	29.75	2222
22. N50 P0	20	65.03	4980	34.97	1741
23. Check	10	68.65	2490	31.35	780
24. 20-10-0 @200#/A	20	69.30	4980	30.70	1528
25. 20-10-0 @400#/A	56	69.41	13944	30.59	4265
26. 20-10-0 @600#/A	No Harvest				
27. Check	15	67.43	3735	32.57	1216
28. 20-20-0 @200#/A	37 $\frac{1}{2}$	63.31	9337	36.69	3425
29. 20-20-0 @400#/A	53 $\frac{1}{2}$	67.35	13321	32.65	4349
30. 20-20-0 @600#/A	No Harvest				
31. Check	13	65.24	3237	34.75	1124

BRUNKER RANGE FERTILIZATION TRIAL

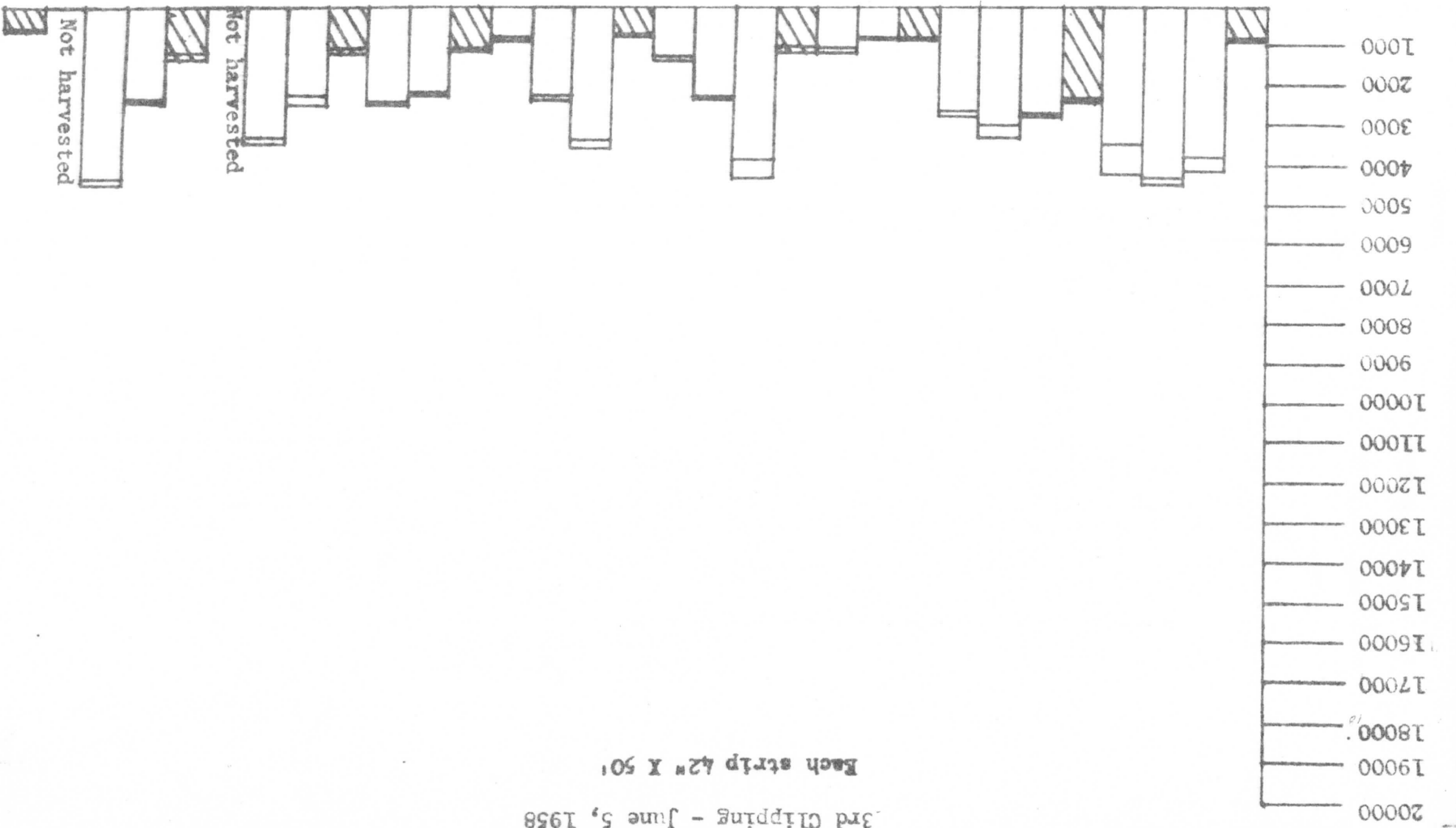
3rd Clipping 6/5/58

Each strip 42" X 50'

	<u>Strip Wt.</u>	<u>% Moisture</u>	<u>Green Wt./A</u>	<u>% D.M.</u>	<u>D.M./Acre</u>
1. Check	4 lbs.	13.45	996 lbs.	86.55	862 lbs.
2. N100 P80	16.5	6.13	4108	93.87	3856
3. N100 P40	18.5	8.69	4606	91.31	4205
4. N100 P0	16.5	16.17	4108	83.83	3443
5. Check	9.5	6.49	2365	93.51	2211
6. N50 P80	11.5	4.88	2863	95.12	2723
7. N50 P40	13.0	7.65	3237	92.35	2989
8. N50 P0	11.0	3.85	2739	96.15	2633
9. Check	3.5	6.70	871	93.30	812
10. NO P80	3.5	7.91	871	92.09	802
11. NO P40	4.5	6.56	1120	93.44	1046
12. Check	4.5	7.87	1120	92.13	1031
13. N100 P80	17.0	9.09	4233	90.91	3848
14. N50 P80	9.5	4.65	2365	95.35	2255
15. NO P80	5.5	5.97	1369	94.03	1287
16. Check	3.5	7.23	871	92.77	808
17. N100 P40	14.5	7.89	3610	92.11	3325
18. N50 P40	9.5	6.70	2365	93.30	2206
19. NO P40	3.5	8.36	871	91.64	798
20. Check	4.5	5.74	1120	94.26	1055
21. N100 P0	9.5	7.43	2365	92.57	2189
22. N50 P0	10.5	3.48	2614	96.52	2523
23. Check	4.5	5.00	1120	95.00	1064
24. 20-10-0 @200 #/A	10	6.04	2490	93.96	2339
25. 20-10-0 @400 #/A	14.5	6.24	3610	93.76	3384
26. 20-10-0 @600 #/A	No Harvest				
27. Check	5.5	8.75	1369	91.25	1249
28. 20-20-0 @200 #/A	10.5	4.55	2614	95.45	2495
29. 20-20-0 @400 #/A	18.0	3.64	4482	96.36	4318
30. 20-20-0 @600 #/A	No Harvest				
31. Check	2.5	3.53	622	96.47	600

Brunker Range Fertilizer Trial
3rd Clipping - June 5, 1958

Each strip 42" X 50'



Pounds Green Wt. Per Acre

The lower line on each bar indicates total dry weight per acre

T R E A T M E N T

CHECK
N100 P80
N100 P40
N100 P0
CHECK
N50 P80
N50 P40
N50 P0
CHECK
N0 P80
N0 P40
CHECK
N100 P80
N50 P80
N0 P80
CHECK
N100 P40
N50 P40
N0 P40
CHECK
N100 P0
N50 P0
CHECK
20-10-0 @200# /A
20-10-0 @400# /A
20-10-0 @600# /A
CHECK
20-20-0 @200# /A
20-20-0 @400# /A
20-20-0 @600# /A
CHECK