Ellis Ranch

Bob Powell Trial

SOIL-VEGETATION SURVEY
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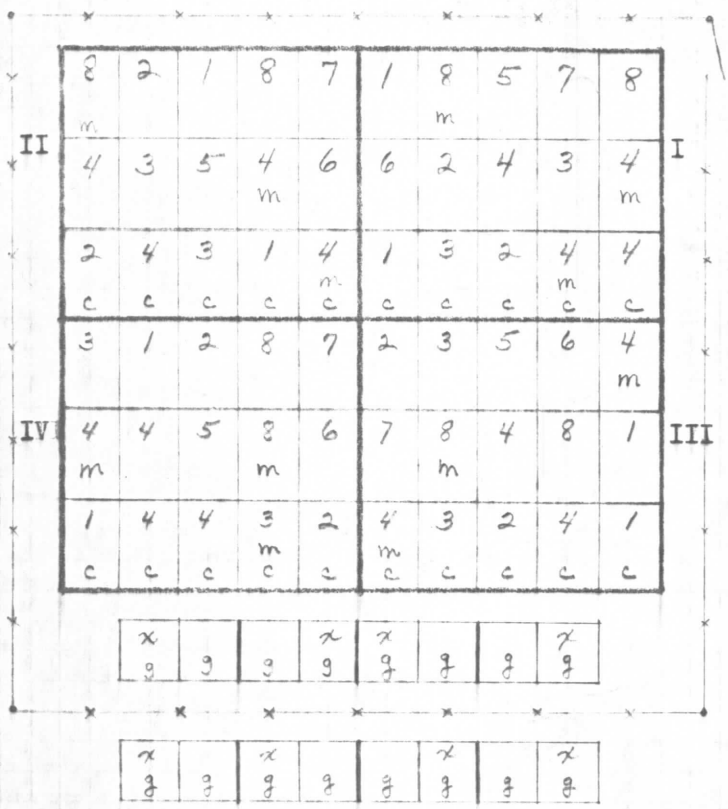
FIELD NUTRIENT TRIAL 4-2

Sprayed and seed broadcast 15 Nov 1968
Plot fenced 20 Nov 1968
Fertilizer broadcast 27 Nov 1968



AUBURN soil series
Soil-Veg. plot 7, SW ¼ Bangor Quadrangle (50B-3)
Butte County, George Ellis Ranch
SE ¼ of NE ¼ of Section 7, T.17N., R.5E.
Slope south 6%, Elevation 300 ft.
4 mi. SW of Bangor, 500 feet N of LaPorte Road.

Fertilizer treatments

1. No fertilizer
2. S
3. P
4. PS
5. N
6. NS
7. NP
8. NPS

S = 100 lb/A of sulfur in 290 lb of gypsum and 50 lb of soil sulfur.

P = 100 lb/A of phosphorus in 435 lb high test sulfur-free treble super-phosphate (=230 lb P_2O_5).

N = 150 lb/A of nitrogen in 445 lb of ammonium nitrate.

Seed and spray treatments

x. Sprayed with paraquat at 1/3 lb/A (= 2/3 quart) in 75 gallons water with 1/2 pint X-77 surfactant.

c. Sprayed with paraquat and seeded with 50 lb/A of the following legume seed mix:

Mt. Barker, Woogenelup, Geraldton and Yarloop Sub clovers; Wilton rose clover, Cyprus barrel medic.

g. Seeded with above legume mix plus 5 lb/A each of hardinggrass and Palestine orchard grass.

m. Micronutrients. These never were applied.

Note: Legumes were pellet-innoculated with appropriate strains of bacteria.

Field Nutrient Trial No. 4-1

State Coop. Soil-Vegetation Survey

SIERRA soil series

J. Maurice Gravier Ranch

1.8 mi NNE of Bangor, 250 yd W of Gravier house, 100 yd N of LaPorte Rd.

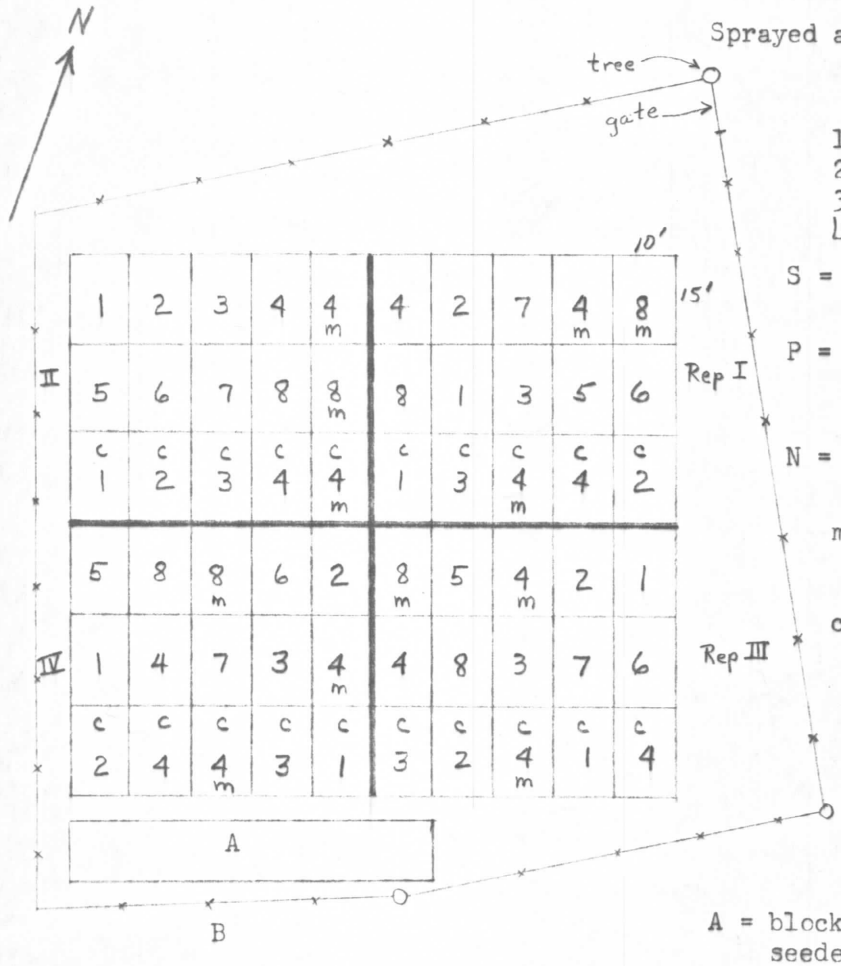
Quadrangle 50B-2

NE ¼, NE ¼, Section 22, T18N, R5E.

Elevation 1125 feet; Slope SSE 8%

Fertilizer applied 22 Nov 67

Sprayed and seeded 1 Dec 67



TREATMENTS

1. no fertilizer	5. N
2. S	6. NS
3. P	7. NP
4. PS	8. NPS

S = 100 lb/A of sulfur in gypsum and elemental sulfur

P = 100 lb/A of phosphorus (230 lb P_2O_5) in TVA triple super phosphate

N = 150 lb/A of nitrogen in ammonium nitrate

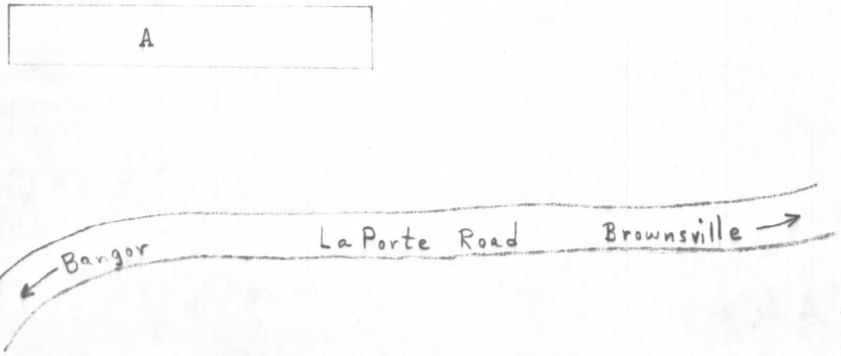
m = micronutrient application

c = sprayed with paraquat (½ lb/A) and seeded with subclover mixture (100 lb/A, pellet innoculated) :

Mt. Barker	25%
Woogenelup	25%
Geraldton	25%
Yarloop	25%

A = blocks sprayed with paraquat and seeded with 20 lb/A of mixture:

Hardinggrass	25%
Palestine orchardgrass	15%
Mt. Barker sub	20%
Woogenelup sub	20%
Geraldton sub	10%
Wilton rose clover	10%



B = area seeded as in A but not sprayed

All seed broadcast

Ellis name?

S-V Survey
Field Nutrient Trial 4-2
Sampled 25,28 April 1969

Fertilizer treatment	Herbage yield, lb/A oven-dry	
No fertilizer	2682	a
S	2562	a
P	3192	abc
PS	2832	ab
N	3942	bcd
NS	4212	cde
NP	4818	de
NPS	5220	e
No fertilizer w/clover	2268	a
S " "	1866	a
P " "	3030	a
PS " "	2988	a

The clover part of this experiment was not intended to be a species trial but was to determine whether a solid clover stand that was seeded would be any more useful than resident vegetation for indicating a yield response to fertilizer. The clover stand was not solid as noted below.

Species on clover plots	Fertilizer			
	None	S	P	PS
	%	%	%	%
Rose clover	32	31	35	32
Sub clover	19	28	17	25
Grasses	15	11	16	15
Broadleaves	34	30	32	28

Oct 11 ¾-1½" favourable year
+ Wann Oct

Sierra Soil Series
Soil-Vegetation Plot 4-1

Fertilizer	Oven dry yield 26 Apr 68		30 Apr 69
None	1290	a	1476
S	1338	a	1800
P	1770	ab	3054
PS	1506	ab	2352
N	2412	bc	1896
NS	2772	cd	2250
NP	3384	d	2568
NPS	3492	d	2460
w/clover None	—		2676
w/clover S	—		2424
w/clover P	—		3696
w/clover PS	—		3348