## MANIPULATION OF WOODY COVER STUDY PLACER COUNTY

Untreated	Treated
N W	N W
23 47 35	60 80
34 28	46 48
- 22	- 34
18 8	6,6
. 6 14	6 5 4
42 28	42 8
	N W 23 47 35 34 28 31 - 22 18 8 .6 114

N - North = facing slope W - West = facing slope

Sampled 2/27/57

## WATERSHED MANIPULATION STUDY PLACER COUNTY

	A	В	C	
Total Herbaccous ground cover (Density)	5.5	5.0	9.0	muma
Botanical Composition:				
Annual grasses	29.5	35.0	30.5	
Trifolium spp. Erodium botrys Total Brodiaea spp. Galium spp. Other forbs	2.5	9.0 2.0 11.0 21.5 12.5 20.0	8.5 9.5	
Total Undesirable forbs	68.0	54.0	61.0	
Total grasses	29.5	35.0	30.5	
Total Forbs	70.5	65.0	69.5	

Sampled: 2/27/57

PLACER COUNTY -- STUDY OF SOILS IN 3 WATERSHEDS

Statistical analysis of soil depth.

Wate	rshed	Av. Depth	Standard	Standard	Unbiased	Number of	ederedi uzeko elkorek ortizalikuzikazikakiaan	%	
		Inches	Deviation s	Error E	s <sup>2</sup>	Samples	Auburn	Exchequer	White Rock
A	59.2Ac	n 21.5	6.24	1.27	40.7	24	67	16.7	16.7
В	34.0Ac	21.5	8.60	2.22	79.6	15	40	53	7
C	15.5Ac	18.3	6.45	1.79	45.0	13	54	31	15
ABC		20.7	7.02	•97					
-	arisons watershe	Er	andard ror of fference Ed	D <b>ifference</b> D	D/E <sub>d</sub>	Fx	F <sub>5%</sub>	F <sub>1%</sub>	
A-B			0	0	0	1.96	2.17	2.93	
A-C			2.19	3.2	1.46	1.10	2.51	3.80	
B-C			2.85	3.2	1.12	1.77	2.64	4.05	

Since  $D/E_d$  is smaller than  $E_d$  in all comparisons, there is <u>no</u> significant difference between the average depths on the 3 watersheds.

Since the F test shows  $F_{\rm x}$  less than F at both the 5% and 1% level, it can be assumed that there is <u>no</u> significant differences between the frequency distributions of soil depth on the three watersheds.

Thus the average depth of the combined watersheds may be used for all computations.

Street

### VEGETATIVE COMPOSITION PLACER COUNTY EXPERIMENTAL WATERSHEDS

May 14, 1959

There are eight transects, each 150 feet long, in each watershed. Step-pointing was done so that a point was made each five steps, a record of the overhead tree canopy was made at the same points, and a density estimate was made each 10 steps. Therefore each transect had 10 ground cover points, 10 canopy observations, and five density estimates, or a total of 80 ground cover points, 80 canopy observations, and 40 density estimates for each watershed.

It should be noted that in all 240 points, no filaree was observed. The same was true in the sampling of June 4, 1957. It is felt that this is a result of relatively late sampling as far as forage drying is concerned, since filaree was noted in the original sampling of February 27, 1957.

Density estimates are considerably above previous records, although the relationship between watersheds is about the same as in previous samplings.

Young, low-growing poison oak was considered in the density estimates, and this may account in part for the higher density estimates. It is also possible that the amount of young poison oak has increased.

Following is the summary of all watersheds and the detailed records of the individual watersheds.

	A	B	C	ALL
Amount of open canopy, %	25	12	29	22
Desirable grasses, %	6	6	13	8
Desirable legumes, %	3	10	11	8
Undesirable forbs & weeds, %	61	44	45	50
Undesirable grasses, %	30	40	31	34
Density of ground cover	15	15	22	17

GRANSECT	No.	0	2		3	0	4	2	5	MARKET STREET	6	BUT SHEW BOOK SPECTOR	7	MICHIGAN CONTRACTOR	8	BOTO STORES	Al	SERVICE STREET, STREET
	No.	70	No.	%	No.	70	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Density 1.	1	10	1	10	4	40	1	10	1	10	1	10	1	10	0	0	10	
2.	5	50	2	20	6	60	1	10	2	20	2	20	1	10	0	0	19	
3.	1	10	0	0	1	10	0	0	0	0	2	20	0	0	0	0	4	
4.	2	20	2	20	6	60	3	30	3	30	1	10	0	0	3	30	20	
5.	1	10	1	10	0	0	1	10	2	20	3	30	0	0	0	0	8	
Total & Ave.	10	20	6	12	17	34	6	12	8	16	9	18	2	4	3	6	61	15.3
Canopy: Open	4	40	1	10	2	20	1	10	3	30	8	80	1	10			20	25
Blue Oak	2	20	1	10			2	20			1	10					6	8
Live Oak	4	40	8	80	8	80	5	50	7	70	1	10	9	90	10	100	52	64
Digger Pine	1000				No. of Contract of		SCHOOL STATE			The state of the s		-						
Black Oak					MANAGE STATES		2	20									2	3
Perennial brome	1	10			2	20											3	
Wild oats			089						1	10							1	
Soft chess			O COLOR		en company		Special Control of the Control of th				1	10			The same of		1	
Stipa	Sept.				di Operation		Special		-									
Blue Wild Rye					1960,950		District of the Control of the Contr		Section .									
Sub	1	10	and the same of th		2	20	continuation of the contin		1	10	1	10			onesterolists		5	6
Bur clover							The same of						7					
Trifolium					-				1	10			1	10			2	
Annual lotus	See See						Electron .		and the same of th			1			all property of			
Sub					40209020				1	10	C C C C C C C C C C C C C C C C C C C		1	10	Marie II		2	3
Poison oak	1	10	2	20	1	10	1	10	1	10					3	30	9	
Klamath weed					and the second		-		1	10	OF THE PERSON				1	,	í	
Geranium			100 mg		per la		MA (2) MA		S-State State Stat		Toward or other transfer or ot							
Weedy legume					State		Total Control		and and and		PACKET N							
Undesirable forb	6	60	3	30	4	40	5	50	3	30	7	70	6	60	5	50	20	
Sub	7	70	5	50	5	50	6	60	5	50	7	70	6	60	8	80	39 49	61
Ripgut	-	-	5	50	3	30	1	10	2	20	1	10	3	30	2	20	NOTE OF STREET	0.1
Red brome	1	10	,	,,,	-	,0	-	10	1		-	10	,	50	~	20	17	7-1
	-	TO	1				Services.		1	10					90000		2	
Spanish brome			Marie Carlo						The state of the s		-				***************************************		Office Control	
Annual fescue					ACCOUNT OF		1	10	and percentage		Section 1						1	
Briza minor	Encoder.		SAMPLIANS				No.		Security of the second				Name of the last		-		100 M	
Nitgrass			Scottes de la constante de la		Section 2		1	10	No. of Control		NAME OF TAXABLE PARTY.		discovering.		-		1	
Hairgrass	1	10	de la constante		to de la constante de la const		1	10	and and and and		1	10	and the same of th		Contraction of the Contraction o		3	
Melic			Special		distance of the second		parent of the same		-		All products		Mary Sales				(Separate)	
Sub	2	20	5	50	3	30	4	40	3	30	2	20	3	30	2	20	24	30

PLACER B

TANSECT	1		2		3		4	CER	5		6		7		8		Al.	1
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	no.	%
Density 1.	0		2	20	2	20	1	10	3	30	2	20	1	10	2	20	13	O THE PARTY OF THE
2.	1	10	1	10	0		3	30	1	10	2	20	2	20	3	30	13	
3.	1	10	2	20	1	10	1	10	1	10	1	10	1	10	1	10	9	
4.	0	G	5	50	2	20	0		0		2	20	1	10	2	20	12	
5.	2	20	2	20	1	10	1	10	1	10	2	20	1	10	1	10	11	
Total & Ave.	4	8	12	24	6	12	6	12	6	12	9	18	6	12	9	18	58	14.
Canopy: Open	1	10			1	10					7	70	1	10			10	12
Blue oak	8	80	3 5	30	7	70	10	100	1 9	10	3	30	3	30 40	10	100	17	21
Live oak Digger Pine	1	10	)	50	-	TO	10	TOO	7	70	NAME OF THE PERSON OF THE PERS		4 2	20	10	TOO	47	59
Black oak	-	10	2	20	1	10	Scorenges						-	20		1111	3	4
Perennial brome	1	10			1	10	1	10	1								3	
Wild oats	Name of the last		COLUMN		Monthornakia		SEASON OF THE PERSON OF THE PE		oremeade		Section 2		1	10			1	
Soft chess	Secretary Control		And the same of th		1	10			and		Section 200		NAME OF TAXABLE PARTY.		OP-SHOWING STATES		1	
Stipa	The same of		A COMPANSION OF THE PERSON OF		0.000		entherica distriction of the second		ACRES (SCHOOL SCHOOL SC						ar eresent			
Blue Wild Rye			POTENTIAL DE LA COMPANION DE L		SOLUTION .		and the same of th		CONTRACTOR		and principles		-		-		F E	
Sub	1	10	Approximate and the second		2	20	1	10	and the same				1	10	Contraction of the Contraction o	B -1 + 8 -	5	6
Bur clover			T		1	10				1,0	1	10	1	10			3	
Trifolium	DESCRIPTION OF THE PERSON OF T		easonases easonases		STATE OF THE STATE		-		Security		2	20	STORY		and the same of th		2	
Annual lotus	-		No.		0.00		Control				3	30	-		A CONTRACTOR OF THE PERSON OF		3	
Sub			and the same of th		1	10	-		disease of the latest of the l		6	60	1	10			8	10
Poison oak	1	10	2	20	1	20	1	10	4	40	1			-	1	10	11	-
Klamath weed	1	10	2	20	2	20	1	10	4	40	Chapterio .		1	10	1	TO	2	
Geranium			recovered		STATE OF THE PERSONNELS		-	10	Section 1				-	10	and the same of th		2	
Weedy legume	and the second		and a second		permention		SHAROMAN		200000				-				-	
Undesirable forb	4	40	5	50	11	10	3	30	4	40	1	10	2	20	2	20	22	
Sub	5	50	7	70	3	30	5	50	8	80	1	10	3	30	3	30	35	44
Ripgut	3	30	3	30	3	30	4	40	1	10	T		2	20	3	30	19	
Red brome	200		Table ( ) Common ( ) C		New Control		25.50				1	10	2	20	1	10	4	
Spanish brome	and the second		STATE OF THE PERSON NAMED IN COLUMN NAMED IN C		egye references		2000		Stockster		on the second		and the same of th		and the second			
Annual fescue	and the same of th		Chicamanica		ALC THE REST OF THE PARTY OF TH		Name of the last		Stewarts and		1	10	1	10	2	20	4	
Briza minor	and a second		CONCRETE				Mark Company		Name of the last		and and and and		-					
Nitgrass	- Designation of the last of t		ACCOUNTED TO		and the second		Sales Sales		-									
Hairgrass	1	10			1	10	th security and		1	10	1	10			-		4	
Melic			-				and the same of th								1	10	1	
Sub	4	40	3	30	4	40	4	40	2	20	3	30	5	50	7	70	32	40

TRANSECT	No	. %		. %	-	. %		. %	No	. %		. %	No	7 %	No.	8 %		11
Density: 1.	3	30	1		2		13		2		5	50	2	Manager and	A CONTRACTOR	There has discovered		
2.	1		2		3		3		2	20	1	10	3	20 30	3	10	19	
3.	3		2		2	-	3		2		2		2	700	0	30	18	
4.	2	20	2	20	1	10	4		2	20	3	30	2	20	2	20	18	
5.	1	10	1	10	1	10	4		4	40	i	10	2	20	1	10	15	
Total & Ave.	10	20	8	16	9	18	17		12	24	12	24	111	22	7	14	86	21.
Canopy: Open	8	80	T		2	20	3	30	4	40	3	30	2	20	1	10	23	29
Blue oak	1	10	3	30	4	40	7	70	2	20	5	50	1	10	3	30	26	33
Live oak	1	10	7	70	4	40	and the same of th		3	30	2	20	7	70	5	50	29	36
Digger pine	and Comments		olevane supplier supp		Stopenskips		Participant.		1	10	-				1	,,	1	1
Buckeye	-		epotential de la constitución de		Transcalle State Control		and an investment of the contract of the contr		artistics steamed		The same of the sa		Missementer		1	10	1	1
Perennial brome	T		The second										1	10			1	
Wild oats	-	4	de datemen		10 Marie		der strategischen		1	10	M Assistant		Si Prancisco de				1	
Soft chess	2	20	1	10	1	10	ANTO BOOKER.		1	10	1	10	(majoritania)		-		6	
Stipa	and the same of th		SERVICES		1	10	decembers.		establishment of the second		Name of the least		Contraction of the Contraction o		SAUGE SELECT		1	
Blue Wild Rye			PARTAMENT .		The separate		SAMOONIA SA		on the same of the		1	10	elotopopo				1	
Sub	2	20	1	10	2	20	desilias mano		2	20	2	20	1	10			10	13
Bur clover		1.0 4 1.7	Distribution	A	1	10	2	20	2	20	1	10					6	
Prifolium	1	10	ADDICTION OF THE PERSON		SECTION SECTION		Amendy State		mental about				998000000				1	
Annual lotus	-		1	10	CONTRACTOR OF THE PERSON OF TH		1	10	and the same of th								2	
Sub	1	10	1	10	1	10	3	30	2	20	1	10	and an artist of the second				9	11
Poison oak			PER CONTRACTOR DE CONTRACTOR D				and the same of		1	10	2	20			1	10	4	
Clamath weed			A CONTRACTOR OF THE PERSON OF		1	10	Manager 10		Consultant								1	
Jeranium			recommendation of the second		1	10	1	10	Monthead		1	10	and the second				3	
Veedy legume	CONTRACTOR DE				Mentonical		STATE OF THE PERSON OF THE PER		SOCIETATION		Name of the last o				1	10	í	
Indesirable forb	4	40	5	50	2	20	1	10	5	50	1	10	7	70	2	20	27	
Sub	4	40	5	50	4	40	2	20	6	60	4	40	7	70	4	40	36	45
lipgut	- Commercial		1	10	-		3	30	-		1	10	1	10	6	60	12	
Red brome	No. of Contract Contracts		OKONEMINA		2	20	1	10	Name of Parties		Company of the Compan						3	
Spanish brome	1	10	2	20	2	201	Parameter Parame		en-construction and a second		Marin Association and the Control of Control		8			,	3	
nnual fescue	- International Control				Andreas Anna		sactivities despitate				Appendix Control of the Control of t		all personal				-	
riza minor	1	10	Parameter annual parame		And reposition And a		processor and pr		naccount pleas		Character and an annual control of the control of t		PSC Schwed (A. A.				1	
itgrass	Barren and a		No. of Street,		Electronic de la constantina della constantina d		DESCRIPTION OF THE PROPERTY OF		NACOTA-SUPE		STATE OF THE PERSON NAMED IN COLUMN NAMED IN C		Ossista de la companya del companya de la companya della companya					
airgrass	1	10	Manage Participal		1	10	1	10	CARGODO SAND		2	20	1	10		-	6	
[elic	about transfer		Oliver in the last of the last		and and a second		SANTON SA		Generalities		Annual Charles (Particular)						0 11	
Sub	3	30	3	30	3	30	5	50	-		3	30	2	20	6	60	25	31

# VEGETATIVE COMPOSITION PLACER COUNTY EXPERIMENTAL WATERSHEDS May 19, 1960

The annual forage sampling was made by Charles Walker, Agronomy Department. There are eight transects, each 150 feet long, in each watershed. Step-pointing was done so that a point was made each five steps and a density estimate was made each 10 steps. Therefore, each transect had 10 ground cover points and five density estimates. The totals for each of the three watersheds are 80 points and 40 density estimates.

Transects have been identified and located by means of wooden stakes driven into the ground. Location has been difficult at times. For further identification, strips of colored plastic tape were hung from trees near the start and finish of each transect. Red tape marks the start, yellow marks the finish.

#### DENSITY OF GROUND COVER

Density is about the same as last year, considering all watersheds. However, there was variation in individual watersheds compared to a year ago. The density on "A" increased markedly, while "C" decreased a similar amount. One reason for "A" increasing may be an increase in young, low growing poison oak. Nevertheless, density of ground cover remains low in all watersheds.

		A	В	C	All
Density of ground cover,	%	20.5	12.8	16.5	16.6

#### BOTANICAL COMPOSITION

The botanical composition of the ground cover present is shown below.

		Water	shed	
	A	В	C	All
Desirable grasses, %	10.8	8.9	16.3	11.7
Desirable legumes, %	8.8	10.0	10.0	9.6
Undesirable grasses, %	22.6	37.6	36.4	32.1
Undesirable forbes and weeds, %	58.9	43.9	37.6	46.7

#### WATERSHED COVER

A more realistic measure of forage production would be to consider the botanical composition in its relation to the entire watershed, rather than to the 15 or 20% of the area covered by low growing vegetation. Such a consideration is found in the table below.

	A	В	C	All
Desirable grasses, %	2.05	1.14	2.69	1.94
Desirable legumes, %	1.80	1.28	1.65	1.59
Undesirable grasses, %	4.63	4.81	6.01	5.33
Undesirable forbes and weeds, %	12.07	5.62	6.20	7.75
Bare of ground cover, %	79.45	87.15	83.45	83.39

From this it is seen that over all watersheds, only about  $3\frac{1}{2}\%$  is covered by desirable forage, both grasses and legumes, while  $96\frac{1}{2}\%$  of the ground is either devoid of low growth or is supporting undesirable forage plants.

Walker

# PLACER COUNTY EXPERIMENTAL WATERSHEDS May 16, 1961

The annual forage sampling was made by Charles Walker, Agronomy Department. There are eight transects, each 150 feet long, in each watershed. Step-pointing was done so that a point was made each five steps and a density estimate was made each 10 steps. Therefore, each transect had 10 ground cover points and five density estimates. The totals for each of the three watersheds are 80 points and 40 density estimates.

Transects have been identified and located by means of wooden stakes driven into the ground. Location has been difficult at times. For further identification, strips of colored plastic tape were hung from trees near the start and finish of each transect. Red tape marks the start, yellow marks the finish.

#### DENSITY OF GROUND COVER

Density is 10% higher than for any previous year. The excellent feed year for the area may have caused an increase in this figure. Placer G, with a more open canopy, returned to its place as having the highest density. Placer G has always shown the greatest density of ground cover, except for the 1960 reading.

		Wate	rshed	
	A	B	C	A11
Density of ground cover, %	26.3	18.0	37.0	27.1

#### BOTANICAL COMPOSITION

The botanical composition of the ground cover is shown below.

		Wate	rshed		
		B	C	All	
Desirable grasses, %	8	6	13	9	
Desirable legumes, %	14	3.4	18	15	
Undesirable grasses, %	35	40	41	39	
Undesirable forbs and weeds, %	44	40	29	38	
Total desirable, %	22	20	31	24	
Total undesirable, %	79	80	70	77	

The percentage of desirable grasses is in the same range as previous years. The percentage of desirable legumes showed more than a 50% increase over previous years, possibly due to the type of season. Undesirable grasses increased, and weeds decreased.

#### WATERSHED COVER

Applying the density estimate to the botanical composition provides information on the actual cover of low growing vegetation on the watersheds.

		Water	rshed	
	_A_	B	C	All
Desirable grasses, %	2.1	1.1	4.8	2.4
Desirable legumes, %	3.7	2.5	6.7	4.1
Undesirable forbs & weeds, %	11.6	7.2	10.7	10.3
Undesirable grasses, %	9.2	7.2	15.2	10.6
Total desirable, %	5.8	3.6	11.5	6.5
Total undesirable, %	20.8	14.4	25.9	20.9
Bare of ground cover, %	73.7	82.0	63.0	72.9

Using these figures, the desirable grasses increased by about 25%, the desirable legumes more than doubled, the undesirable grasses doubled, and the weeds increased by about 50% as compared to a year ago.

The total of desirable forage almost doubled, while the total of undesirables increased about 50% from a year ago.

#### Transect

	No.	ANT/SACIAL VALUE OF	No.	8	No.	g	No.	%	No.	· ·	. No.	-	No.	-	8	-	150	A11
Density 1.	4	40	1	10	1	10	2	20	6	60	4	40	1	10	0	0	1	<u> </u>
2.	2	20	1	10	2	20	2	20	5	50	7	70	0	0	1	10		
3.	2	20	3	30	1	10	1	10	0	0	4	40	1	10	2	20		
4.	2	20	4	40	6	60	3	30	6	60	6	60	0	0	0	0		
5.	2	20	2	20	1	10	3	30	6	60	8	80	2	20	1	10		
Total & Ave.	12	24	11	22	11	22		22	23	46	29	58	4	8	4	8	105	26.
Composition																		
Soft chess							1	10			3	30	end anomaly in the second				4	
Wild oats	- Andrewski series								1	10							1	
codland brome					1	10											1	
Sub total					1	10	1	10	1	10	3	30					6	8
Bur clover	1	10	1	10	2	20			1	10			2	20			7	
Annual trifolium	1	10					2	20	1	10							4	
Sub total	2	20	1	10	2	20	2	20	2	20			2	20			11	14
Ripgut	2	20	6	60	3	30	2	20	3	30	1	10	4	40	3	30	24	
Brisa minor	and the same of th		1	10			1	10				- Comment					2	
Hairgrass	(and Christophila State			and the state of t					1	10	1	10					2	
Sub total	2	20	7	70	3	30	3	30	4	40	2	20	4	40	3	30	28	35
Klamath weed	1	10											2	20			3	
Poison oak	1	10			1	10				- Company of the Comp			1	10	1	10	4	
Brodiaea	Section of the sectio	No. of Concession, Name of Street, or other Designation, Name of Street, Original Property and Name of Street,			2	20	1	10			1	10	1	10	3	30	8	
Other weeds	4	40	2	20	1	10	3	30	3	30	4	40			3	30	20	
Sub total	6	60	2	20	4	40	4	40	3	30	5	50	4	40	7	70	35	44

### Transect

	i bi	1	Fare	2	7 75-	1	1	<u></u>	4-	5		5	-	7		8		All
	1	0. %			NO.	enseller.	NO.		Bio	3	No.	18	No	<u> </u>	No	. %	No	• 2
Density 1.	0	0	1	10	2	20	1	10	1	10	4	40	2	20	2	20		
2.	0	0	3	30	1	10	1	10	2	20	2	20	3	30	2	20		
3.	1	10	1	10	3	30	1	10	3	30	5	50	3	30	1	10		
4.	1	10	3	30	3	30	2	20	1	10	2	20	4	40	1	10		
5.	0	0	1	10	1	10	2	20	0	0	2	20	2	20	2	20		
Total & Ave.	2	4	9	18	10	20	7	14	7	14	15	30	14	28	8	16	72	18
Composition																		
Soft chess	and the same of th										3	30	1	10	Character and Ch		4	
Calif. melie	al and a second		TO THE PERSON NAMED IN COLUMN 1 AND ADDRESS OF THE PERSON NAMED IN						Philosophia Company						1	10	1	
Sub total	Principal and an address from		and the same of th								3	30	1	10	1	10	5	6
	+		-				-				_	-		-	_		Ľ	-
Bur clover	sensiti gi si sensi		Participation and the same		1	10			2	20	2	20	2	20	1	10	8	
Annual trifolium	TOTAL STREET		1	10	1	10									Commence of the commence of th		2	
Lotus	approximation of the state of t				an fragadi fu for mustass				C State of the Late of the Lat		1	10	A SECTION OF THE SECT		construction of the constr		1	
Sub total			1	10	2	20			2	20	3	30	2	20	1	10	11	14
Ripgut	3	30	3	30	2	20	4	40	3	30	1	10	7	70	4	40	27	**********
Brisa minor			2	10	1	10	1	10							2	20	5	
Sub total	3	30	4	40	3	30	5	50	3	30	1	10	7	70	6	60	32	40
Klamath weed	T				1	10		-									1	
Poison oak	Shi saherine ramidan		1	10					1	10					1	10	3	
Brodiaea	3	30	1	10			2	20									6	
Other weeds	4	40	3	30	4	40	3	30	4	40	3	30			1	10	22	
Sub total	7	70	5	50	5	50	5	50	5	50			0	0	-			
	1				,	,,,	,	20	,	20	3	30	0	0	2	20	32	40

#### Transect

	no.	8	No.	8	No.	1 18	No.	1	No.	第	No.	8	No.	8	No.	2	A11
Density 1.	1	10	2	20		40	6	60	5	50	5						
2.	3	30	3		en-referen		8					50	3	30		20	
				30	4	40		80	7	70	4	40	3	30	5	50	
3•	4	40	4	40	3	30	3	30	6	60	3	30	3	30	1	10	
4.	2	20	5	50	3	30	2	20	7	70	8	80	2	20	1	10	
5.	3	30	3	30	2	20	8	80	3	30	2	20	3	30	2	20	
Total & Ave.	13	26	17	34	16	32	27	54	28	56	22	44	14	28	11	22	148 37
Composition										,		NAME OF THE OWNER.					
Soft chess	3	30	1	10	5	50			1	10			- Accession				10
Sub total	3	30	1	10	5	50			1	1.0			Continue of contin				10 1
Bur clover	1	10			1	10	3	30	2	20	3	30	2	20	1	10	13
Annual trifolium							Approximation of the control of the		1	10						y in	1
Sub total	1	10			1	10	3	30	3	30	3	30	2	20	1	10	14 11
Ripgut	2	20	5	50			4	40	1	10	2	20	3	30	4	40	21
Brisa minor	1	10			1	10	1	10							1	10	4
Hairgrass	2	20			1	10	STATE OF THE PARTY				3	30					6
Annual fescue							Contramental Contra								1	10	1
Unknown grass													1	10			1
Sub total	5	50	5	50	2	20	5	50	1	10	5	50	4	40	6	60	33 43
Brodiaea					1	10							-				1
Other weeds	1	10	4	40	1	10	2	20	5	50	2	20	4	40	3	30	22
Sub total	1	10	4	40	2	20	2	20	5	50	2	20	4	40	3	30	23 29

### Pive Year Review

Density and botanical composition records have been maintained over the five year period of 1957-1961, with the exception of 1958.

Density estimates for each watershed for this period are shown for each watershed.

	Year								
Watershed	1957	1959	1960	1961					
A	5.5	15.3	20.5	26.3					
B	5.0	14.5	12.8	18.0					
G	9.0	21.5	16.5	37.0					
Ave.	6.5	17.1	16.6	27.1					

The average density of ground cover for all watersheds for the four year period was 16.8%.

Botanical composition records are shown for the similar period with all watersheds grouped together.

	Year								
	1957	1959	1960	1961	1957-61				
Annual grasses	31.7	•		-	-				
Desirable grasses	7.0%	8	11.7	9	8.9 *				
Desirable legumes	6.2	8	9.6	15	9.7				
Desirable forbs	1.2	-	-	-	•3				
Undesirable grasses	24.6*	34	32.1	39	32.4*				
Weeds	61.0	50	46.7	38	48.9				
Total desirable plants	14.4*	16	21.3	24	18.9*				
Total undesirable plants	85.6#	84	78.8	77	81.3*				

<sup>\*</sup>estimated

The improved density and quality of the forage in 1961 may be a result of what has been considered as an "excellent grass year."

Applying the average density of the period to the average botanical composition for the period shows the watersheds to have the following covering of low growing vegetation.

Cover	-8
No vegetation	83.2
Desirable grasses	1.5
Desirable legumes	1.6
Desirable forbs	.1
Undesirable grasses	5.4
Weeds	8.2
Total desirable forage	3.2
Total undesirable forage	13.7