

RR 301  
 Modoc  
 Potter Pasture

2/4/36  
 Runey

Tree + seedling damage by cattle  
 Calculations

Size	(1) Total Parts	(2) Total parts grazed	(3) % $\frac{(2)}{(1)}$	(4) % needles eaten	(5) % needles eaten of entire tree $\frac{(2)}{(1)} \times (4)$	(6) No. of twigs eaten	(7) % $\frac{(6)}{(1)}$	(8) % twig eaten	(9) % twigs eaten of entire tree $\frac{(6)}{(1)} \times (8)$	(10) No. of leaders eaten	(11) % $\frac{(10)}{(1)}$	(12) % leader eaten	(13) % leader eaten of entire tree $\frac{(10)}{(1)} \times (12)$
9	7	5	71.4	80	57.1	2	28.6	30	8.6	1	74.3	30	4.3
13	6	4	66.7	50	33.3	1	16.7	100	16.7	1	14.3	100	14.3
15	17	10	58.8	80	47.1	6	35.3	75	26.5	2	11.8	75	8.9
16	7	2	28.6	90	25.7	1	14.3	100	14.3	1	14.3	100	14.3
17	8	6	75.0	60	45.0	3	37.5	30	11.25	1	12.5	30	3.8
18	5	2	40.0	90	36.0	2	40.0	70	28.0				
19	12	12	100.0	30	30	1	8.3	100	8.3	1	8.3	100	8.3
20	42	25	59.5	55	32.7	13	31.0	22.5	7.0	2	4.8	22.5	1.1
22	16	6	37.5	80	30.0	5	31.3	30	9.4	1	6.3	30	1.9
23	14	8	57.1	40	22.8	6	42.9	50	21.5	1	7.1	50	3.6
24	13	8	61.5	40	24.6	5	38.5	90	34.7	1	7.7	90	6.9
39	39	14	35.9	50	17.9	12	30.8	30	9.2	1	2.6	30	.8

H/A  
Type

Effect of Cattle Grazing on <sup>Ponderosa</sup> Pine Reproduction  
Damage to Ponderosa Pine Reproduction by Cattle

2/8/36  
RWS

Grazed  
Plot: 1/4 mi south of well #2  
Potter Pasture Experimental Range  
Modoc National Forest

Height of Tree (inches)	No. parts on tree	Parts damaged		Instances of Damage				% foliage grazed	Remarks	
		No.	% of total	Needle	Twig		Leader			
					No.	% current growth				No.
9	7	5	71.4	5	2	8.6	1	4.3	57.1	Scurred by trampling - cattle grazed at base
13	6	4	66.7	4	0	0	0	0	33.3	
15	8	2	25.0	2	1	10.0	1	10.0	22.5	Porcupine damage at base
15	9	8	88.8	8	5	38.9	1	7.8	62.2	Will probably die - cattle cause of damage
16	7	2	28.6	2	1	14.3	1	14.3	25.7	
17	8	6	75.0	6	3	11.3	1	3.8	45.0	Influenced by fallen snag - cattle grazed
18	5	2	40.0	2	2	20.0	0	0	36.0	Grazed by cattle
19	12	12	100.0	12	1	8.3	1	8.3	30.0	Needles yellowish
20	17	8	47.1	8	3	3.5	1	1.2	28.3	Needles yellowish
20	25	17	68.0	17	10	10.0	1	1.0	34.0	Heavily scurred at base - probably livestock
22	16	6	37.5	6	5	9.4	1	1.9	30.0	
23	14	8	57.1	8	6	21.5	1	3.6	22.8	
24	13	8	61.5	8	5	34.7	1	6.9	24.6	Heavy porcupine damage at base
39	39	14	35.9	14	12	9.2	1	.8	12.2	Heavy porcupine damage at base
Total	186	102	802.6	102	56	207.7	12	63.9	459.4	
Average	13.3	7.3	57.3	7.3	4	14.8	.9	4.5	32.8	

Horizontal ↑

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