

August 29, 1938

RESULTS OF SECOND EXAMINATION OF PINE SEEDLING PLOTS

BURGESS SPRING EXPERIMENTAL RANGE

1938

An examination made in late August about eight weeks after the preceding examination showed little cattle damage to pine seedlings on the Burgess Spring Experimental Range. Most of the dead seedlings could be found and cause of death determined. Probably death of most had been recent due to hot weather. Mortality to date was less than 40 percent, about half of last year at this time, probably because of early-season soil moisture.

Percent mortality of seedlings during the two-week period was about the same as during the preceding two years. Six were trampled in one cache on the random plots, making a high percent of total mortality, due to cattle, for those plots. However, of the total of 168 "spots" that died in the pasture, only 2 were killed by trampling. No deaths from grazing were recorded. Under conditions prevailing this year the results from a two-month period are considered to be reliable, if not so definite as for two-week intervals.

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Summary of pine seedling mortality, second examination  
Burgess Spring Experimental Range

August 22 - 24, 1938

	North half		South half	Entire area
	Random	Systematic	Systematic	Systematic
Seedlings alive, 6/27 - 7/7/38	222	107	154	261
Seedlings alive, 8/22 - 24/38	131	69	104	173
New germination	0	2	6	8
Mortality between examinations	91	40	58	96
Percent mortality	40.9	36.7	34.9	37.2
Seedlings trampled	6	1	1	2
Percent of total mortality	6.6	2.5	1.8	2.1
Spots alive, 6/27 - 7/7/38	118	65	78	145
Spots alive, 8/22 - 24/38	75	42	55	95
New germination - spots	0	0	4	4
Mortality between examinations	45	25	25	48
Percent mortality	38.0	35.3	32.0	35.5
Spots trampled	1	0	1	1
Percent of total mortality	2.2	0	4.0	2.0
Spots trampled but not killed	2	1	0	1
Plots with seedlings, 6/27 - 7/7/38	91	54	56	110
Plots with seedlings, 8/22 - 24-38	55	39	41	80