

The actual distribution of cost of the two methods of irrigation are shown in Table II. The data presented shows that the cost of furrow irrigation ranged from \$33.95 to \$71.21 per acre or from \$13.11 to \$16.30 per acre foot of water, while the cost of sprinkler irrigation ranged from \$37.64 to \$100.56 per acre or from \$12.02 to \$26.39 per acre foot of water. Thus, although sprinkler irrigation was as cheap as furrow irrigation in some cases, in many cases it exceeded it, so that if a simple average is taken for the orchards included in this study, sprinkler irrigation cost \$11.38⁴ more per acre and \$2.33 more per acre foot of water than furrow irrigation.

A breakdown of the cost indicate that although furrow irrigation had higher costs for truck, tractor, and labor, it had lower costs for repairs, interest, and depreciation on equipment. The high truck & tractor and low labor cost for record # 10 resulted from the frequent use of a truck to turn on permanent sprinkler system.

Summary

The results obtained in this study cannot be represented as averages for irrigation cost in Placer County, because both the orchards and their operators were considerably better than average. But they are representative of the practices employed.

Because of the limited extent of this study no definite conclusions may be drawn as to the relative cost of these two methods of irrigation. However, the data here presented, suggest that under foot-hill conditions, the differential in cost between sprinkler and comparable furrow irrigation is of a small magnitude.

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4. Note that the sprinkler irrigated orchards recieved 3.7 inches more water per acre than the furrow irrigated orchards.

TABLE I. IRRIGATION PRACTICES

Serial Number	Acre Inches per Acre	Number of Irrigation	Inches per Irrigation	Irrigation Interval	Hours Labor per Acre	Investment per Acre
Furrow Irrigation						
1	25	16	1.6	12 days	22	--
2	25	14	1.8	9 days	16	--
10	65	24	2.3	7 days	46	8.33
Average	38.3	18	1.9	9 days	28	2.78
Sprinkler Irrigation						
3	32	12	2.7	12.5 days	17	24.28
4	48	26	1.8	7 days	27	46.65
5	32	20	1.6	7 days	26	46.65
6	47	14	3.4	9 days	16	31.25
7	24	15	1.6	12 days	18	53.50
8	32	18	1.8	10 days	4	191.12
9	42	16	2.6	12 days	31	60.08
11	78	24	3.3	7 days	50	134.97
Average	42	18	2.4	9.5 days	24	73.56

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TABLE II. DISTRIBUTION OF COST

Serial Number	Cost per Acre							Cost per Acre Foot
	Tractor and Truck	Labor	Repairs Taxes Misc.	Depreciation	Interest	Water	Total	Total
Furrow Irrigation								
1	.64	22.06	--	-	-	11.25	33.95	16.30
2	1.31	18.23	1.00	-	-	14.40	34.94	16.64
10	1.47	43.01	.54	.83	.42	24.94	71.21	13.11
Average	1.14	27.76	.51	.28	.14	16.86	46.70	15.35
Sprinkler Irrigation								
3	--	14.07	2.77	3.69	1.22	15.89	37.64	14.05
4	.87	19.09	2.62	5.57	2.33	14.93	45.41	12.02
5	1.83	21.21	1.14	5.57	2.33	15.87	47.95	18.13
6	--	13.00	6.13	6.25	1.56	27.00	50.94	13.14
7	--	17.75	4.45	10.70	2.68	16.88	52.46	26.39
8	2.50	3.82	7.13	25.50	9.55	13.50	62.00	22.96
9	--	28.20	2.00	12.02	3.00	22.50	67.72	19.35
11	--	47.13	3.26	13.50	6.75	29.93	100.56	15.42
Average	.65	20.53	3.68	8.66	3.67	19.56	58.08	17.68