

MONTEREY PINE CHRISTMAS TREE PLANTATION

Cost Analysis Work Sheet

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This work sheet was developed to show sample costs for establishing a Monterey Pine Plantation under Fresno County conditions. These costs can be useful as a guide; however, it is important to consider the following:

1. Costs are based on a planting of 3-5 acres, 1800 trees per acre on a 4' x 6' spacing, furrow irrigated and assumed to be part of a farm for which machinery and water are available.
2. Income is based on the sale of 3, 4, and 5 year old trees at an average value of \$1.25 per foot from a "choose and cut" operation.
3. Tree loss with furrow irrigation was calculated at 25% of the original stand. Under sprinkler irrigation system, the mortality rate can be lowered considerably.
4. The accumulated net profit as shown at the end of the 5th year must be interpreted with caution. The reason being that at this time the potential Christmas tree market has passed the saturation point.
5. With the number of plantations now established in Fresno County and other surrounding counties, a grower must look at the area market potential. At this time, approximately 6000 trees are sold seasonally from "choose and cut" operations in Fresno County.
6. The number of merchantable Christmas trees that will reach the market in the next 3 years is estimated to be 250,000. This figure is based on the number of trees that have been sold in this area from the state nursery.
7. With an increase in the number of Christmas trees reaching merchantable size in the next two to three years, the cost of marketing and advertising will increase significantly. If a surplus of Christmas trees materializes and many trees remain unsold, the net return will be reduced to a non-profitable basis.

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Sample costs to establish a Monterey Pine Christmas tree plantation in Fresno County and income from it for a 5 year period. Planting density is 1800 trees per acre. Man labor at \$2.00 per hour and equipment operator, \$2.20, including social security and Workman's Compensation Insurance. This study assumes maintenance at an 1800 tree stand.

	Costs Per Acre				
	1st Year	2nd Year	3rd Year	4th Year	5th Year
Yield: Harvested trees			300	900	350
CULTURAL COSTS:					
Land preparation					
Disc 2 times & harrow					
1 hr. man & tractor	\$ 3.60				
Ridges on 6' centers					
½ hr. man & tractor	1.80				
Trees: 1800 @ \$19/thousand	34.20				
Planting: 90 hrs. labor	180.00				
Replant: Starting 2nd year		\$ 54.00	\$ 12.00		
Replace harvested trees				\$ 32.00	\$ 96.00
Irrigate 7 times	11.00	15.00	20.00	24.00	24.00
Fertilize, starting 2nd year					
Material: 75 lbs. N @ 12c		9.00	9.00	9.00	9.00
Labor		6.00	6.00	6.00	6.00
Weed control:	34.00	34.00	34.00	34.00	34.00
Spray		8.50	9.50	11.00	12.00
Shaping & pruning		200.00	370.00	412.00	132.00
Advertising & promotion			100.00	100.00	100.00
Taxes	17.50	17.50	25.00	25.00	25.00
Repairs, except tractor	8.00	4.00	10.00	10.00	10.00
Misc. labor, materials	6.00	6.00	6.00	6.00	6.00
Removal of unsalable trees					25.00
Office, car, insurance, etc.	20.73	24.78	42.11	46.83	33.53
Total Cultural Costs	\$316.83	\$378.78	\$643.61	\$715.83	\$512.53
DEPRECIATION:					
Irrigation system & well					
\$240.00 - 25 yrs.	9.60	9.60	9.60	9.60	9.60
Equipment, except tractor					
\$50.00 - 10 yr. life	5.00	5.00	5.00	5.00	5.00
Tractor	3.00	1.20	1.20	1.20	1.20
Total Depreciation	\$ 17.60	\$ 15.80	\$ 15.80	\$ 15.80	\$ 15.80
INTEREST ON INVESTMENT AT 7%:					
Irrigation system: ½ cost \$120	8.40	8.40	8.40	8.40	8.40
Equipment, except tractor: ½ cost \$25	1.75	1.75	1.75	1.75	1.75
Tractor	1.50	.60	.60	.60	.60
Land: \$900	63.00	63.00	63.00	63.00	63.00
Interest on accumulated costs		28.66	63.42	14.19	
Total Interest on Investment	\$ 74.65	\$102.41	\$137.17	\$ 87.94	\$ 73.75
TOTAL COST FOR THE YEAR	\$409.08	\$496.99	\$796.58	\$819.57	\$602.08
Total accumulated costs	\$409.08	\$906.07	\$1702.65	\$1022.22	\$3775.70
Tree sales			\$1500.00	\$5400.00	\$2187.50
Accumulated net profit	\$-409.08	\$-906.07	\$-202.65	\$4377.78	\$5963.20