



2000 CHRISTMAS TREE PRODUCTION BUDGET ¹
Single Leaf Conifer - Frasier Fir, Canaan Fir, Douglas Fir, and Blue Spruce
Hand Planted - 10 year Rotation ²
Retail Sales - Ready Cut

ITEM	YEAR										TOTAL	YOUR BUDGET	
	1	2	3	4	5	6	7	8	9	10			
Christmas Trees (percent sold) ³								10%	25%	35%	30%	100%	_____
INCOME													_____
Christmas Trees								2,800	7,000	9,800	8,400	28,000	_____
800 trees sold over entire rotation													
\$ 35 per tree													
VARIABLE COSTS													_____
Seedlings ⁴	700	105										805	_____
Fertilizer	50											50	_____
Herbicides	60	60	60	40	40	40	40	40	40	40	40	240	_____
Insecticides			20	30	40	50	50	50	50	50	50	290	_____
Shearing ⁵			106	97	175	175	175	175	175	175	175	1050	_____
Hired Labor ⁶	378	243	81	81	81	81	81	81	81	81	81	1269	_____
Fuel, Oil, Grease	13	12	11	11	11	11	11	11	11	11	11	113	_____
Machinery Repairs	6	5	5	5	5	5	5	5	5	5	5	51	_____
Harvesting ⁷							120	300	420	360		1200	_____
Miscellaneous ⁸	15	15	15	15	15	15	15	15	15	15	15	150	_____
Interest on Oper. Cap.	106	37	26	24	32	33	44	60	71	66		457	_____
TOTAL VARIABLE COSTS	1286	450	315	294	390	401	532	728	859	793		6049	_____
FIXED COSTS													_____
Operator Labor Charge ⁶	90	90	54	54	72	72	90	90	72	72		756	_____
Mach. And Equip. Charge ⁹	32	32	32	32	32	32	32	32	32	32		320	_____
Land Charge	85	85	85	85	85	85	85	85	85	85		850	_____
Liability Insurance ¹⁰	75	75	75	75	75	75	75	75	75	75		750	_____
Management Charge ¹¹	50	50	50	50	50	50	140	350	490	420		1700	_____
TOTAL FIXED COSTS	332	332	296	296	314	314	422	632	754	684		4376	_____
TOTAL COSTS	1618	782	611	590	704	715	954	1360	1613	1477		10425	_____
RETURN ABOVE VARIABLE COSTS	-1286	-450	-315	-294	-390	-401	2268	6272	8941	7607		21951	_____
RETURN OVER TOTAL COSTS	-1618	-782	-611	-590	-704	-715	1846	5640	8187	6923		17575	_____
PRESENT VALUE RETURNS ¹²	-1618	-711	-505	-443	-481	-444	1042	2894	3819	2936		6489	_____

- ¹ No charges for marketing are included due to the wide range of marketing situations found in Ohio. However, marketing costs should be added to your budget. These costs should include the labor, advertising, supplies, and facilities used in the marketing of the trees. Marketing costs may be minimal up to \$5/tree in operations with an extensive marketing program.
- ² No costs are included for reclamation of the ground after the final year of the Christmas Tree stand. Reclamation may be necessary depending upon the future use of the ground.
- ³ 1000 trees originally planted, 800 harvested, 200 trees died or were not suitable for sale
- ⁴ 1000 seedlings planted first year, 150 re-planted second year. Cost per seedling= \$0.70.
- ⁵ Shearing costs= \$0.125/tree year 3 and 4, \$0.25/tree following years.
- ⁶ Labor Charged at \$9/hour. Does not include harvesting, marketing or shearing. Labor requirements listed below.
- ⁷ Harvesting includes cutting, baling, transporting to loading area, and loading on vehicle. Retail harvesting cost = \$1.50/tree. Harvesting costs may be \$0 if operation is "cut your own".
- ⁸ Includes small tools, soil tests, etc...
- ⁹ Includes depreciation, interest, and insurance costs.
- ¹⁰ Liability insurance included for retail operations. Premium estimated at \$375/year/site. Cost spread out over an assumed five acres of production. Example: \$375/site) 5 acres = \$75.
- ¹¹ Years 1-6 management charge = \$50. Years 7-10 management charge= 5% of sales

Required Labor for Christmas Tree Enterprise (hours)

	Year										
	1	2	3	4	5	6	7	8	9	10	TOTAL
Hourly Charge \$9.00 /hr											
Hired Labor	42	27	9	9	9	9	9	9	9	9	141
Operator Labor Charge (Management)	10	10	6	6	8	8	10	10	8	8	84

¹² **Returns Over Life of Stand and Time Value of Money**

Since a Christmas tree operation occurs over as many as ten years, it is important to examine the time value of money associated with the enterprise. Time value of money is based on the premise that \$1 today (present value) is worth more than \$1 in the future. This is basically because the \$1 today can be invested and appreciate in value until some time in the future. Therefore in regards to the Christmas tree enterprise, \$1 of return in year one would be worth more than \$1 of return in year ten. Returns in future years need to be discounted to reflect the time value of money. The following table lists the returns and present value of returns from the enterprise.

	Return Over Total Costs	Present Value	Discount Rate = 10%
Year 1	-\$1,618	-\$1,618	<i>The discount rate is the degree to which the future values are discounted to reflect current values. It is generally assumed to be equivalent to the amount you could earn in alternative investment opportunities.</i>
Year 2	-\$782	-\$711	
Year 3	-\$611	-\$505	
Year 4	-\$590	-\$443	
Year 5	-\$704	-\$481	
Year 6	-\$715	-\$444	
Year 7	\$1,846	\$1,042	
Year 8	\$5,640	\$2,894	
Year 9	\$8,187	\$3,819	
Year 10	\$6,923	\$2,936	
TOTAL	\$17,575	\$6,489	

Over the life of the tree stand, the enterprise will generate \$17,575 in returns. However, since much of the return comes in future years, it is not the same as having \$17,575 in the operator's pocket today. The present value column indicates that if the operator was given the equivalent return in one lump sum today (present value), it would be worth \$6,489. The difference of the total returns and the present value returns is a result of the time value of money.