

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 Harvesting includes cutting, baling, transporting to loading area, and loading on vehicle.

Wholesale harvesting costs= \$1.00/tree.

⁷ Includes small tools, soil tests, etc...

⁸ Labor Charged at \$9.00/hour. It is the labor required of the operator to manage the operation. Does not include harvesting, marketing or shearing. See table below for labor requirements.

⁹ Includes depreciation, interest, and insurance costs.

¹⁰ Year 1-6 management charge is \$50. Year 7-10 management charge= 5% of sales

Labor Requirements (hours)

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

¹¹ **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 (future value). 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.

		Returns Over Total Costs	Present Value
Year	1	-1588	-\$1,588
Year	2	-736	-\$669
Year	3	-545	-\$450
Year	4	-524	-\$394
Year	5	-638	-\$436
Year	6	-649	-\$403
Year	7	588	\$332
Year	8	2395	\$1,229
Year	9	3618	\$1,688
Year	10	3015	\$1,279
TOTAL		\$4,937	\$588

Discount Rate = 10%
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.

Over the life of the tree stand, the enterprise will generate \$4,937 in returns. However, since much of the return comes in future years, it is not the same as having \$4,937 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 \$588. The difference of the future value returns and the present value returns is a result of the time value of money.