



**2000 CHRISTMAS TREE PRODUCTION BUDGET <sup>1</sup>**  
**Scotch and White Pine**  
**Hand Planted - 10 year Rotation <sup>2</sup>**  
**Retail Sales - Ready Cut**

ITEM	YEAR										TOTAL	YOUR BUDGET
	1	2	3	4	5	6	7	8	9	10		
Christmas Trees (percent sold) <sup>3</sup>							10%	25%	35%	30%	100%	
<b>INCOME - RETAIL</b>												
Christmas Trees							1,500	3,750	5,250	4,500	15,000	_____
600 trees sold over entire rotation												
\$ 25 per tree												
<b>VARIABLE COSTS</b>												
Seedlings <sup>4</sup>	300	45									345	_____
Fertilizer	30										30	_____
Herbicides	60	60	60	40	40	40	40	40	40	40	240	_____
Insecticides			20	30	40	50	50	50	50	50	290	_____
Shearing <sup>5</sup>			106	97	175	175	175	175	175	175	1050	_____
Hired Labor	378	243	81	81	81	81	81	81	81	81	1,269	_____
Fuel, Oil, Grease	13	12	11	11	11	11	11	11	11	11	113	_____
Machinery Repairs	6	5	5	5	5	5	5	5	5	5	51	_____
Harvesting <sup>6</sup>							90	225	315	270	900	_____
Miscellaneous <sup>7</sup>	15	15	15	15	15	15	15	15	15	15	150	_____
Interest on Oper. Cap.	72	34	27	25	33	34	42	54	62	58	442	_____
<b>TOTAL VARIABLE COSTS</b>	874	414	325	304	400	411	509	656	754	705	4880	_____
<b>FIXED COSTS</b>												
Operator Labor Charge <sup>8</sup>	75	75	45	45	60	60	75	75	60	60	630	_____
Mach. And Equip. Charge <sup>9</sup>	31	31	31	31	31	31	31	31	31	31	310	_____
Land Charge	85	85	85	85	85	85	85	85	85	85	850	_____
Liability Insurance <sup>10</sup>	75	75	75	75	75	75	75	75	75	75	750	_____
Management Charge <sup>11</sup>	50	50	50	50	50	50	75	188	263	225	1050	_____
<b>TOTAL FIXED COSTS</b>	316	316	286	286	301	301	341	454	514	476	3590	_____
<b>TOTAL COSTS</b>	1190	730	611	590	701	712	850	1110	1268	1181	8470	_____
<b>RETURN ABOVE VARIABLE COSTS</b>	-874	-414	-325	-304	-400	-411	991	3094	4496	3795	10120	_____
<b>RETURN OVER TOTAL COSTS</b>	-1190	-730	-611	-590	-701	-712	650	2640	3982	3319	6530	_____
<b>PRESENT VALUE RETURNS <sup>12</sup></b>	-1190	-664	-505	-443	-479	-442	367	1355	1858	1408	1264	_____

- <sup>1</sup> 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.
- <sup>2</sup> 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.
- <sup>3</sup> 1000 trees originally planted, 600 harvested, 400 trees died or were not suitable for sale
- <sup>4</sup> 1000 seedlings planted first year, 150 re-planted second year. Cost per seedling= \$0.30.
- <sup>5</sup> Shearing costs= \$0.125/tree year 3 and 4, \$0.25/tree following years.
- <sup>6</sup> 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".
- <sup>7</sup> Includes small tools, soil tests, etc...
- <sup>8</sup> 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.
- <sup>9</sup> Includes depreciation, interest, and insurance costs.
- <sup>10</sup> 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.
- <sup>11</sup> Management charge= 5% of sales

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

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<sup>12</sup> **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.

	Returns Over Total Costs	Present Value	Discount Rate =	10%
Year 1	-\$1,190	-\$1,190	<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	-\$730	-\$664		
Year 3	-\$611	-\$505		
Year 4	-\$590	-\$443		
Year 5	-\$701	-\$479		
Year 6	-\$712	-\$442		
Year 7	\$650	\$367		
Year 8	\$2,640	\$1,355		
Year 9	\$3,982	\$1,858		
Year 10	\$3,319	\$1,408		
<b>TOTAL</b>	<b>\$6,057</b>	<b>\$1,264</b>		

Over the life of the tree stand, the enterprise will generate \$6,057 in returns. However, since much of the return comes in future years, it is not the same as having \$6,057 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 \$1,264. The difference of the total returns and the present value returns is a result of the time value of money.