

**4-H FORESTRY PROGRAM**

**Unit C-6**

**MAKING FORESTRY PAY**



**member's manual  
and  
leader's guide**

# Acknowledgment

This educational material has been prepared for 4-H use by the National 4-H Forestry Committee composed of representatives of SEA-Extension, U.S. Department of Agriculture and the Cooperative Extension Service of the State Land-Grant Universities. Special thanks are extended to the International Paper Company for financial and technical assistance. This material is published by National 4-H Council, 7100 Connecticut Ave., Washington, D. C. 20015.

Programs and educational materials of National 4-H Council; SEA-Extension, United States Department of Agriculture; and all Cooperative Extension Services of the State Land-Grant Universities are available to all persons regardless of race, color, sex, age, religion, national origin or handicap. All are equal opportunity employers.



## The principal author

*Joseph Buhaly*, State Extension Forester at Washington State University, is director of Forest Management and Sales Association, Inc., a forest cooperative. He is also director of the Washington Resources Council. Mr. Buhaly is a 1950 graduate of Washington State University, with postgraduate studies at the University of Puget Sound, Pacific Lutheran University and Oregon State University.

## The 4-H Forestry Program

Educational aids in the National 4-H Forestry Program consist of three parts. Unit A – Trees – explains what trees are, how they grow, why they are important and what characteristics identify them. Unit B–

**TABLE 1 – CHRISTM.**

Item	Costs Per A			
	1	2	3	4
	\$	\$	\$	\$
Land preparation	34.00	5.00		
Plant oper. - layout		8.00		
- check row		90.00		
- trees		90.00		
Replant			24.00	
Weed control		16.25	16.25	16.25
- spot spray		20.00	15.00	10.00
Shearing				47.50
Pruning - leaders		12.00		
- handles				90.00
Rodent control				
Mowing				
Insect, disease control				
Fertilize				
Theft protection				
Harvest				
Stump removal, cleanup				
Taxes	10.00	10.00	10.00	10.00
General overhead	3.00	12.00	3.00	9.00
Int. on Oper. Capital	3.00	10.00	2.00	8.00
<b>Total Costs per acre</b>	<b>50.00</b>	<b>273.25</b>	<b>70.25</b>	<b>190.75</b>
Number of trees sold @ average \$2.73/tree (stumpage).....				
Total income - per acre .....				
Net Returns to Land and Management .....				

(1) Labor costs figured at \$3.00/hour - Average stumpage sales price (va 1500 trees planted. 1,350 total trees sold in years 7, 8, and 9. Remain

Forests — is about trees as part of the forest ecosystem, what values people hold for them, and how they are managed. Unit C — Forestry — discusses how people manage the forest resources which provide forest products, recreation, water supplies, wildlife shelter, jobs and other needs.

This sub-unit is only part of a much broader presentation of forestry interests contained in Unit C. In all there are eight publications in Unit C designed to give you an overview of various aspects of the forest industry. You will be advancing from general concepts, as presented in Unit B, to more specific topics, such as

- \*C – 1 The Tasks of Tree Farming
- \*C – 2 Forest Recreation
- \*C – 3 Managing the Forests for Water, Wildlife and Forage
- \*C – 4 Urban Forests
- \*C – 5 Careers in Forestry
- \*C – 6 The Dollar Value of Forestry
- \*C – 7 Timber Harvesting
- \*C – 8 Great Plains Forestry

## AS TREE PLANTINGS<sup>1</sup>

acre By Year

	5	6	7	8	9	
	\$	\$	\$	\$	\$	
	16.25	16.25	16.25	16.25		
	59.00	77.50	99.00	74.50	33.00	
	4.00	4.00	4.00	4.00	4.00	
	20.00			20.00		
	6.00	6.00	69.60 6.00	6.00	6.00	
					100.00	
	10.00	10.00	10.00	10.00	10.00	
	6.00	6.00	10.00	7.00	8.00	
	5.00	5.00	9.00	6.00	7.00	
	126.25	124.75	223.85	143.75	168.00	Summary Totals = \$1370.85
			372	644	334	
			1015.56	1758.12	911.82	= \$3685.50
						= \$2314.65 (\$3685.50 - \$1370.85)

Value of the uncut standing tree): \$2.73  
 per either were culls or died.

## Introduction

The objective of this unit is to make 4-H members aware of how forest resources can be productive investments for your time, money, supplies and talent. First, you must find out what resources are available in a forest area, and how their value might be converted into a dollar figure. Next, you will have to analyze the costs and returns of a potential business venture by preparing a simple analysis sheet. By learning basic elements of planning and decision-making and by keeping simple records you will be able to decide whether or not you should attempt your proposed business venture.

Before deciding on what business venture you might undertake within the forest industry, review the following questions to help you clarify your objectives.

1. **Goals** What do I want to accomplish this month, this year and in 10 years?
2. **Resources** What do I have to work with, including hours of labor per week,

special skills, tools and investment capital?

3. **Analysis** What projects have I tried in the past? Why did I succeed or fail? What projects have others done successfully?
4. **Alternatives** What might I do? What possible options do I have for investing my own personal resources? (List them.)
5. **Decision** What project has the best chance for a profitable outcome, considering my resources and interests?
6. **Action** How and when do I start? (Write a plan of action showing step-by-step procedures, keeping it flexible so that it can be modified when you learn new facts.)
7. **Evaluation** How well did my plan work? What parts did I plan correctly? What would I do differently next time?

Remember that regardless of whether or not our enterprise shows a profit or a loss on labor and other investments, we have gained some valuable experience and information from our efforts.

## Returns on Your Forestry Investment

Whether you have labor, equipment or any other kinds of resources to start, these can be looked at in terms of money. Money is a simple common denominator, and can be viewed as the reflection of your resources in "temporary storage," so to speak. With money you can purchase equipment (such as a shovel) or labor (such as the act of tree planting).

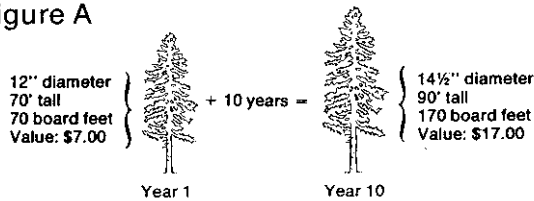
When you put your money in a savings account, your "stored" money can collect interest. *Simple interest* is money paid for the use of the principal, or the amount you originally deposited. *Compound interest* is paid on the principal *plus* the past interest you have accrued.

We generally think of a savings account being started in a bank or a savings and loan association. You can also start a savings account with a forestry investment, for it can be said that trees grow interest, too.

Take for instance a quick-growing tree 12 inches in diameter and 70 feet tall. Its growth

ring features a ¼ inch diameter increase each year  $\subset$  inch on each side of the tree). If the tree grows two feet higher each year, in another 10 years the tree will be 90 feet high and 144/z inches in diameter. Whereas the tree first yielded 70 board feet of lumber, in 10 years it will yield 170 board feet. At 10¢ per board foot the tree will have risen in value from \$7.00 to \$17.00 in 10 year's time. This is a compound interest rate of over nine percent each year.

Figure A



In comparison, if we had put our \$7.00 in a savings account receiving a compound interest of 5½ percent our 10-year returns would have amounted to a total of \$11.96.

In order to calculate whether or not an adequate return is being received on a forestry investment, members should keep a "cost-return record." This sheet records expenses such as time, money and supplies purchased, as well as returns from sales of the forest products. One example of a record sheet for a Christmas tree enterprise is shown on pages 2 and 3.

## Forest Activities That Pay

Here are some examples of possible forest business ventures. Some are long-term activities, such as growing a timber crop, while some are very short-term and require only one or two months to complete.

1. Raising Christmas trees
2. Collecting cones for forest seed
3. Making Christmas tree wreaths or swags using cones and perennial greens such as conifer branches
4. Cutting fuelwood from logging residuals and thinnings
5. Cutting pulpwood
6. Planting trees or thinning trees on contract  
(Check Federal incentive arrangements such as the Agricultural Conservation Program for potential opportunities)

7. Digging and selling wild shrubs and ferns for ornamental landscaping
8. Picking and selling greenery to florists for use in bouquets or funeral arrangements
9. Building birdhouses from logs, slates or sawmill residuals
10. Raising seedlings for Christmas tree growers or forest farmers
11. Kindling bundles made from sawmill residuals and sold to homeowners
12. Picking wild berries for resale
13. Fashioning corsages from small cones, bark, greenery and artificial red berries (especially appealing to potential conventioners in your city)
14. Harvesting cascara bark or other drug products purchased in your area

You can expand upon the above list by talking with local foresters, successful forest operators and your local Cooperative Extension office.

## Note to the Leader:

In guiding your member or members through this unit, first let them read through the manual to understand the concept of a forest business venture. Then have them answer Planning Questions one through six on page 3. When they have completed their responses, hold an individual counseling session to review each member's course of action. Encourage the member to use a time table of target dates for each stage of the project if appropriate. Remind them that much of their success in the venture depends upon their own resources and energy.

## Resources

Local forester

Agricultural banker

Federal Land Bank loan officer

Farmers' Home Administration loan officer

Cooperative Extension farm management specialist (especially those who prepare cost-return studies on various farm enterprises such as forestry)