



# FIREWOOD

**UPPER WILLAMETTE**  
**Resource Conservation and Development Project**

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*In Cooperation With*  
*Oregon State Department of Forestry*

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## F I R E W O O D

INTRODUCTION

At the request of the Woodland Committee of the Upper Willamette Resource Conservation & Development Project, this study has been made on firewood production in the four-county project area of Benton, Lane, Linn and Lincoln counties. Special emphasis has been given to the market outlook, availability of raw material and economics of volume production.

FIREWOOD DEALERS

In 1967, a study was made on the market for fireplace wood in the Eugene area\* and there were eight companies; in 1974 three are listed as firewood dealers. Salem had 31 a few years ago, and now there are only three. Why has this happened?

At one time a large percentage of the basic material purchased by the firewood dealers came from mills in the form of planer ends, chunks, slabs and sawdust. Now, better utilization practices dictate that much of this material be processed into chips. Even the logged off areas no longer yield much in the way of "easy pickings" for the commercial dealers, since it is now profitable for the logging companies to handle salvage logs themselves.

While the supply of mill residue has diminished, the cost of firewood has risen and the domestic need has increased. In the Eugene area, for instance, the cost of wood has increased about 35% in the last seven years. In recent years, many builders have included fireplaces as a basic item in new home and apartment construction. Fireplaces--whether the conventional brick installation, the new pre-fabricated, the innovative free standing, or the versatile Franklin--provide old-time warmth and decorative atmosphere in a home, as well as "instant hospitality." Sometimes they are the answer to supplemental heating requirements for family rooms, recreation rooms, add-on rooms or any hard to heat area.

As a business, the market for firewood is seasonal, and only the larger dealer is able to weather the slack period by utilizing it for acquiring an inventory for the fall and winter.\*\* Or, in some instances, firewood is only one of the many services the fuel dealer may be providing (others include sawdust, hemlock bark, bark dust, shavings, composts, planting mixes).

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\* Cruickshank, E. Douglas, The Market for Fireplace Wood in the Eugene Area, Upper Willamette RC&D Project, February 1967, p.p. 5.

\*\* A Monmouth woodlot operator sold 7,000 cords of oak and fir fireplace and stove wood last year and expects to handle up to 10,000 next season.

## MARKET

The average annual consumption of firewood is about a cord per season. This varies from a quarter of a cord for the family that has a fire only during extremely cold weather or on special occasions, to the consumer who uses his fireplace extensively and burns two cords or more.

The customer may be using a conventional, Franklin or new cone-design fireplace, or one of the efficient radiant wood heaters in his home, apartment or vacation cabin. In some instances, he may have very limited storage space for firewood.

A number of consumers deal regularly with the local wood yard; others watch the ads in the newspapers and buy from a farmer who may be clearing land and selling a few cords during the season. Most farmers and loggers cut their own requirements. In 1973 the U. S. Forest Service and Bureau of Land Management issued free use permits and several thousand persons cut their own; the advent of a small, low-priced chainsaw, no doubt, will make this more popular, particularly as a family outing. However, there are also those consumers who have only an occasional desire for a fire and inadequate storage room; they prefer purchasing the low residue "fire logs" from the local grocery store.

According to this survey, the energy crisis this past winter had little effect on total seasonal sales, although there was a short spurt of activity due to "panic buying." As soon as oil, gas and electricity supplies became more stable, however, sales of firewood returned to normal.

## RAW MATERIAL

In addition to the more limited quantity of mill waste--usually marketed by the local fuel yards--there is a large source of hardwood available from land clearing or tree removal operations. The small limb wood is particularly desirable in the Franklin fireplace. In addition, "scrub" oak covers much of the low site hills and the present-day utilization of this species is for firewood.

## BUSINESS OPPORTUNITY

Mechanical equipment is probably the answer to volume production of firewood, but this represents a sizeable capital outlay. To this must be added the cost of a retail yard and the wages for a crew until the product is sold. Does the market for firewood justify a capital investment?

According to the Cost Analysis for a model company (page 4), a target of 5,000 cords of firewood per year could show a profit to sales ratio of 20.55%, and be run with two 5-man crews using mechanical equipment, including a hydraulic splitter, a portable cut-off saw and an easy loader to facilitate volume production. During the 1973 season, firewood dealers were charging \$36 to \$38 for hardwood and \$27 a cord for

softwood, delivered. Using this example, a person could determine whether or not he has overlooked a potential business opportunity.

However, we do not wish to discourage the small woodland owner or farmer who can benefit from a limited expenditure of time and effort while clearing land or removing trees. For additional income, a landowner can cut between a cord and two cords of 20-inch firewood a day with a powersaw, and market them to cash-and-carry customers.

Another alternative for the small landowner who wishes to derive some financial benefit from land clearing is to sell his stumpage to a woodlot operator for \$45 to \$85 an acre, depending on the timber stand. The buyer will cut the stumps at ground level and treat them with 2-4-5-T Amine or 2-4-D Amine (the Esters will not work) to prevent regrowth. When forage plants are seeded, the land can be grazed the following year with no stump problem.

*A hydraulic splitter and mechanical loading system in operation at Monmouth, Oregon.*

*Mechanical equipment enabled this firewood dealer to process 7,000 cords of fireplace and stove wood last year.*



*Getting set for Winter's chill!  
A farmer prepares his needs  
while the weather is agreeable.*

*Additional income comes from  
cash-and-carry customers.*

COST ANALYSIS  
of  
A "MODEL" FIREWOOD COMPANY

April 1974

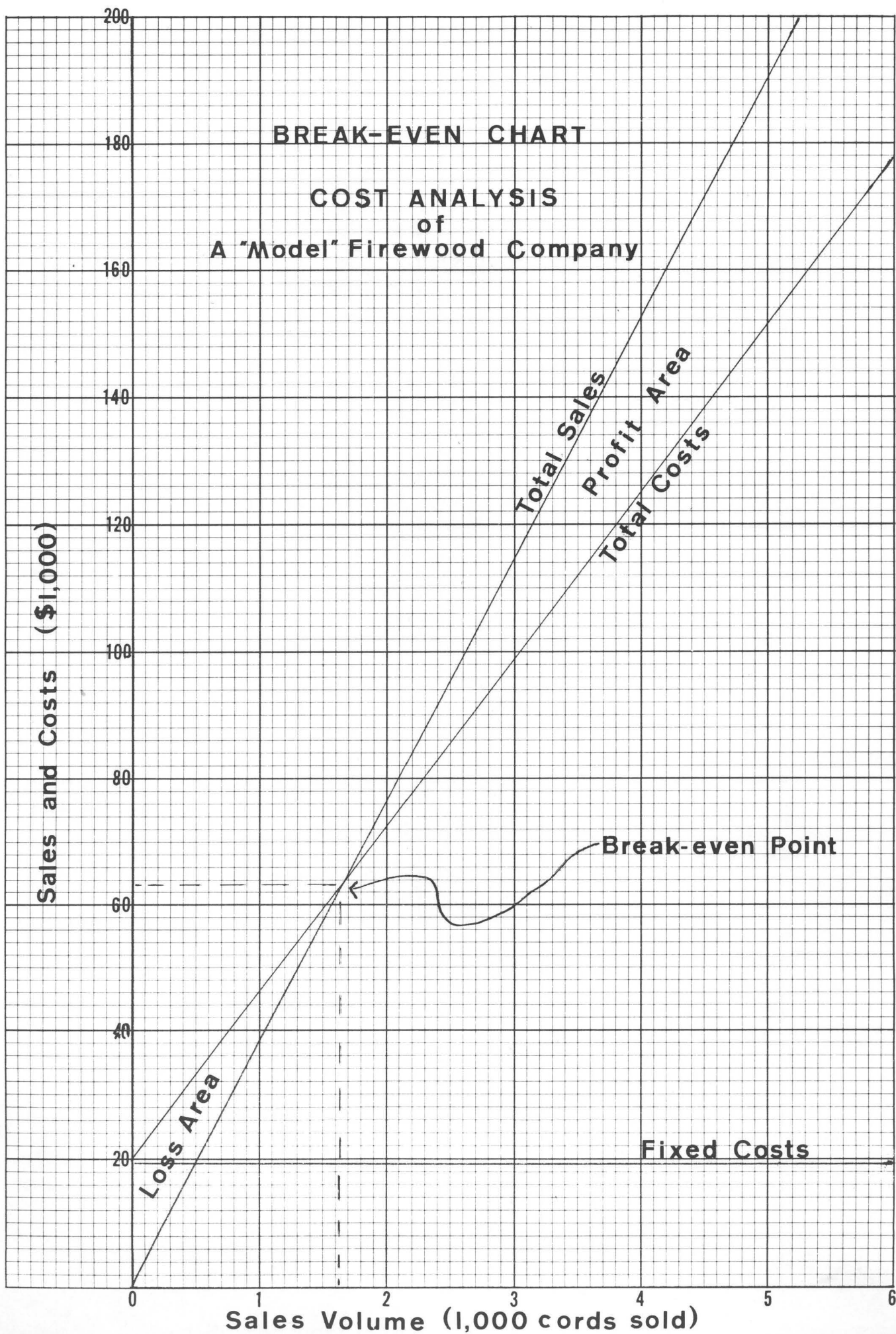
FIXED COSTS		
Item	Purchase Price	Fixed Costs (per year)
Hydraulic splitter 1/	\$1,500	\$ 750
Loading system 1/	800	400
Cut-off saw and rollers 1/	1,000	500
McCulloch Chainsaws 2/ 4 @ \$200 + extra chains	2,000	2,000
Ferguson diesel tractor, form lift, PTO 3/	5,500	1,100
Mack truck, used 3/	3,000	600
Chev. pickup, 3/4 ton, 4 WD 3/	5,000	1,000
Rent on retail yard		2,000
Property tax		600
Office supplies		200
Insurance		800
Lights and water		312
Telephone		600
Interest on equipment		1,720
P.U.C. taxes		1,000
Licenses		100
Equipment maintenance & repair		<u>5,000</u>
Total Fixed Costs		\$ 18,682

VARIABLE COSTS	
Item	Variable Costs (5,000 cords/year)
Employees:	
Two 5-man crews @ \$4.00/hr. (work 50 weeks/yr.)	\$ 80,000
Labor for spraying 2-4-5-T (40 man days)	1,280
Office assistance (6 months)	3,000
Industrial Accident & Unemployment Insurance	30,000
Stumpage, average \$65/acre (200 acres)	13,000
Gasoline, oil and diesel	3,000
2-4-5-T chemical for stumps	<u>2,000</u>
Total Variable Costs	\$132,280

PROFIT TO SALES RATIO	
Total Company sales (1973), 5,000 cords @ \$38 per cord	\$190,000
Total Costs (Fixed and Variable)	<u>150,962</u>
Profit (before taxes)	\$ 39,038
PROFIT TO SALES RATIO	20.55%

- 1/ Depreciation: 2 yrs. S.L. (straight line)  
2/ Depreciation: 1 yr.  
3/ Depreciation: 5 yrs. S.L.

**BREAK-EVEN CHART**  
**COST ANALYSIS**  
of  
A "Model" Firewood Company



FIREWOOD RETAILERS

A number of firewood retailers can be found in the Ad section of the local newspapers, particularly during the fall and winter season. Therefore, we are only listing the full time woodlots to indicate the possible potential for additional operations.

Benton County - None listed

Lane County - Lane Fuel & Garden Supply  
2825 Marcola Road  
Springfield, Oregon 97477  
Phone: 747-8912

Hardwood logs  
Douglas fir chunks  
Sawdust

Rexius Fuel & Garden Center  
750 Chambers Street  
Eugene, Oregon 97401  
Phone: 342-1835

Hardwood logs  
Douglas fir chunks  
Slabs  
Kindling  
Sawdust  
Hemlock bark  
Bark-o-mulch  
Shavings  
Composts  
Planting Mixes

Seward Fuel  
1891 Pacific Hwy. 99N.  
Eugene, Oregon 97402  
Phone: 688-9112

Hardwood logs  
Douglas fir chunks  
Slabs

Lincoln County - None listed

Linn County - Boje's Dry Old Fir  
Rt. 3  
Lebanon, Oregon 97355  
Phone: 258-6686

Douglas fir log  
ends

East Linn Fuel  
785 Wassom  
Lebanon, Oregon 97355  
Phone: 258-7213

Old growth Douglas  
fir ends



*OLD-TIMER - Pot-bellied stove in the Alpha-Bit, Hwy. 36, Mapleton, Oregon. A popular place for crafts, books, and homemade soup, sandwiches and salads.*

*FISHER STOVE - Locally manufactured combination wood burning cook stove and heater. Two cooking temperatures are featured.*



*FIREVIEW WOOD HEATER - Custom made, attractive, radiant wood heater! The fire-glass window permits you to view the flames.*





## WOOD STOVE MANUFACTURERS

The builders of conventional brick fireplaces, and the dealers in contemporary pre-fabricated or free standing units are listed in the local telephone directories. However, it is difficult to obtain a listing of wood stove manufacturers and dealers, and we are printing the following as a service and not an endorsement by the Upper Willamette RC&D Project or the Oregon Department of Forestry.

Ashley Automatic Stove Co.  
1604 7th Avenue, S. W.  
P. O. Box 730  
Sheffield, Alabama 35660

King Stove and Range Co.  
P. O. Box 730  
Sheffield, Alabama 35661

The Atlanta Stove Works, Inc.  
P. O. Box 5254  
Atlanta, Georgia 30307

Autocrat Corp.  
New Athens, Illinois 62264

Monarch Range Co.  
P. O. Box 12  
Madison, Maine 04950

Portland Franklin Stove Foundry,  
Inc.  
P. O. Box 1156  
57 Kennebec Street  
Portland, Maine 04104

Jacks-Evans Mfg. Co.  
11737 Administration Drive  
St. Louis, Missouri 63141

Locks Stove Co.  
114 West 11th Street  
Kansas City, Missouri 64105

Fire-View Wood Heaters  
R. L. Stevenson Co.  
9003 West Evans Creek Road  
Rogue River, Oregon 97537  
Phone: 582-3351

Fisher Stove Works  
135 Commercial  
Springfield, Oregon 97477  
Phone: 747-3841

United States Stove Co.  
South Pittsburg, Tennessee 37380

Shenandoah Manufacturing Co., Inc.  
P. O. Box 839  
Harrisonburg, Virginia 22801

Washington Stove Works  
P. O. Box 687  
Everett, Washington 98201

Monarch Kitchen Appliances  
Beaver Dam, Wisconsin 53916