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ABSTRACT: A survey of the primary forest products harvested in Hawaii in 1967 showed a total value of \$334,000, a 24 percent increase over the value in the 1958 survey. Compared with the earlier survey, the volume of sawlogs and treefern harvested has gone up while the volume of fuelwood and posts harvested has declined.

RETRIEVAL TERMS: primary forest products; annual harvest survey; Hawaii.

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Forest Products

Harvested in Hawaii — 1967

Herbert L. Wick

In 10 years, the value of primary forest products harvested in Hawaii has climbed nearly 25 percent. In 1958, a survey valued the harvest at \$269,000. The latest survey, in 1967, estimates the value at \$334,000. The products include sawlogs, craftwood, treefern, fuelwood, and fence posts. Their ultimate value for retail sale is not known, but is obviously many times greater than the value of the raw material. Comparison of the two surveys also shows that:

- Volume of sawlogs has increased the most among all product classes. It jumped from 405,000 bd. ft., in 1958 to 3,925,000 bd. ft. in 1967.
- Volume of treefern has increased from 100,000 cubic ft. in 1958 to 143,000 in 1967.
- Volume of fuelwood has dropped from 1,300 cords in 1958 to about 720 cords in 1967.
- Number of posts has declined sharply from 65,000 pieces in 1958 to about 7,100 in 1967.

METHODS

The Hawaii Division of Forestry surveyed producers and users of primary forest products in Hawaii as a follow-up to similar surveys in 1958, 1960, and 1963.¹ It sent questionnaires to harvesters, users, and manufacturers of primary forest products. Division of Forestry personnel followed up with visits to non-respondents to get the desired information. They also called on producers to check on possible duplications or to clarify questionable reports.



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Forty companies and individuals responded to the survey. Of this number, 36 were manufacturers or users of primary forest products and 4 were sellers of primary forest products.

RESULTS AND DISCUSSION

The increase during the past decade in total value of forest products harvested has been due primarily to increased logging of eucalyptus sawlogs on the Island of Hawaii (table 1). In 1967, about 81 percent of the sawlogs harvested were eucalyptus, about 11 percent koa, 6 percent ohia, and the remaining 2 percent silk-oak and brushbox. An undetermined volume of koa reported as sawlogs was sold as veneer logs, cants for slicing, and craftwood.

Since 1958, sawlogs and craftwood have accounted for about 60 percent of the total value in a given year except in 1960 when sawlogs and craftwood accounted for only about 44 percent of the total value. Treefern has increased from 13 to 23 percent of total value. Fuelwood has remained stable at about 8 percent, but posts have dwindled from 20 to 4 percent of the total value.

LOGS

In 1967, about 4.1 million bd. ft. of logs were harvested, with an estimated value when delivered at the mill yard of \$219,000 (fig. 1). Of this volume 3.9 million bd. ft. were sawlogs having a total value of \$161,000 and 196,000 bd. ft. were craftwood with an estimated total value of \$58,000.

In 1958, sawlogs accounted for 15 percent of the total value of forest products reported. This value rose 29 percent in 1960, and to 48 percent in 1967. The value of craftwood dropped from 45 percent of the total value reported in 1958 to 10 percent in 1960, and to 17 percent in 1967.

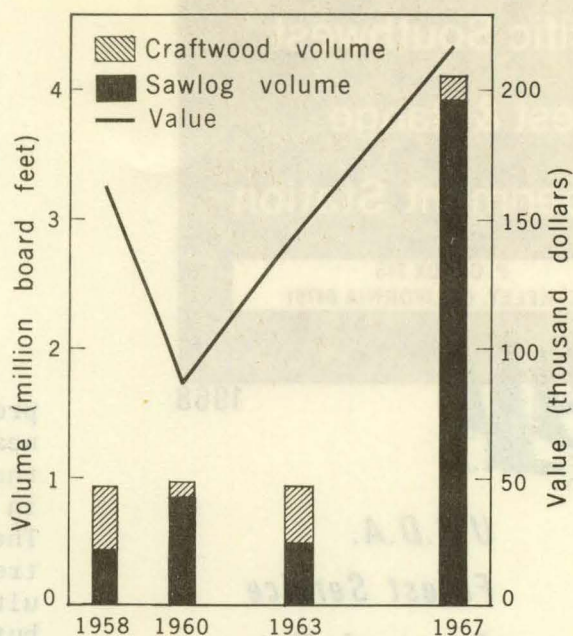


Figure 1.--Volume and value of logs harvested in Hawaii, by survey period.

From 1958 to 1967 the total value of harvested logs increased from \$161,000 to \$219,000, and the volume harvested increased from 915,000 bd. ft. to 4.1 million bd. ft. During this period, the average value of sawlogs delivered at the mill decreased from \$100 per thousand bd. ft. to about \$41 per thousand bd. ft. This decrease was due largely to the shift in species composition making up the sawlog volume. A large volume of koa and ohia was logged in 1958. Both species are expensive to log. In 1967, about 81 percent of the sawlog volume was in eucalyptus which is less expensive to harvest than koa and ohia.

The volume and value of craftwood have fluctuated markedly since 1958 when 510,000 bd. ft. were reported harvested. Their average value then was \$235 per thousand bd. ft., delivered at the mill yard. In 1960, only about 100,000 bd. ft. were harvested, with an average value of \$200 per thousand bd. ft. In 1967, about 196,000 bd. ft. were harvested with an average value of \$295 per thousand bd. ft. The differences in average selling value

Table 1.--Production and value of primary forest products harvested in Hawaii, 1958, 1960, 1963, and 1967¹

Primary forest product	Production				Value							
	1958 ³	1960 ³	1963 ⁴	1967	Average per unit				Total ²			
					1958 ³	1960 ³	1963 ⁴	1967	1958 ³	1960 ³	1963 ⁴	1967
	<i>Dollars</i>											
Sawlogs....bd. ft..	405,000	850,000	--	⁵ 3,925,000	0.10	0.07	--	0.04	40,000	57,000	--	161,000
Craftwood..bd. ft..	510,000	100,000	⁶ 913,000	196,000	.24	.20	⁶ 0.16	.30	121,000	20,000	⁶ 149,000	58,000
Veneer.....bd. ft..	--	30,000	--	--	--	.30	--	--	--	9,000	--	--
Fuelwood.....cords.	1,300	1,500	847	720	14.50	30.00	22.43	38.89	19,000	45,000	19,000	28,000
Posts.....pieces.	65,000	37,000	22,000	7,100	.83	.60	1.05	1.69	54,000	22,000	23,000	12,000
Treefern...cu. ft..	100,000	115,000	118,000	143,500	.35	.38	.33	.52	35,000	44,000	39,000	75,000
Total	--	--	--	--	--	--	--	--	269,000	197,000	230,000	334,000

¹From surveys by Hawaii Division of Forestry, Department of Land and Natural Resources.

²Based on products cut and hauled from the forest but not further processed.

³Source: Nelson (see footnotes at end of this report).

⁴Source: LeBarron (see footnotes at end of this report).

⁵An undetermined volume of koa reported as sawlogs were sold as veneer logs, cants for slicing, and craftwood.

⁶Sawlogs and craftwood were not separated in 1963. LeBarron estimated that the volume was about equally distributed between sawlogs and craftwood.

reflect in large part the mixture of species harvested. Eighty-two percent of the reported craftwood volume in 1967 was monkey-pod, 11 percent milo, and 7 percent mango, hau, koa, and breadfruit.

Increased imports of craftwood have undoubtedly played a part in the amount and value of local craftwood harvested. The extent of their effect on local supplies is unknown but it is probably considerable.

Recently completed inventories of the State's forest resources show that a much larger volume of sawtimber could be harvested annually than the 3.9 million bd. ft. logged in 1967.²

FUELWOOD

In 1967, about 720 cords of fuelwood were harvested with an estimated value of \$28,000. The estimated average value has more than doubled from about \$14.50 per cord in 1958 to \$38.89 per cord in 1967 (table 1). Fuelwood accounted for 7 percent of the total value reported in 1958, for 23 percent in 1960, and for 8 percent in 1963 and again in 1967. About 83 percent of the fuelwood produced came from live trees, 16 percent from dead trees, and about 1 percent from sawmill residue.

POSTS

In 1967, about 7,100 posts were produced as primary forest products, with an estimated value of \$12,000. Although the number of posts harvested has dropped off sharply since 1958, the average cost per post has better than doubled: from \$.83 apiece in 1958 to \$1.69 apiece in 1967. Posts accounted for 20 percent of the total value reported in 1958, for 11 percent in 1960, for 10 percent in 1963, and for 4 percent in 1967. Ninety-three percent of the posts harvested were from live trees, the remaining 7 percent came from dead trees.

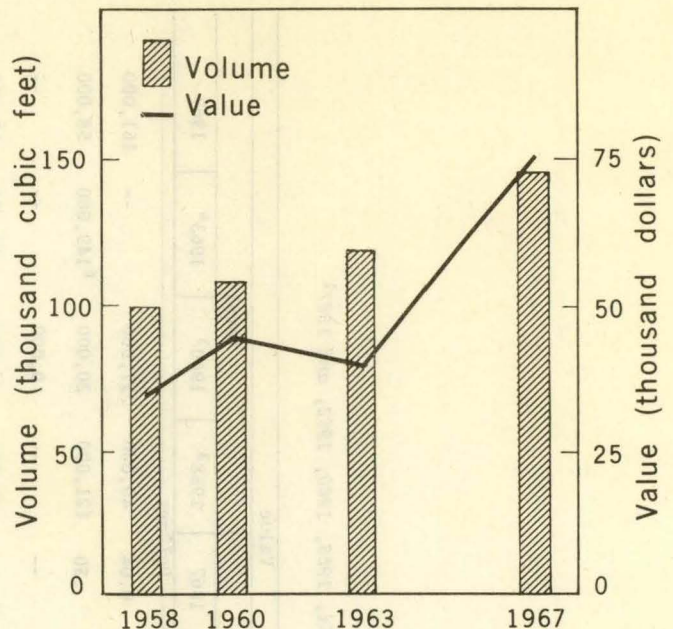


Figure 2.--Volume and value of treefern harvested in Hawaii, by survey period.

TREEFERN

In 1967, about 143,500 cubic feet of treefern were harvested, with an estimated value of \$75,000 delivered to the processing plant (fig. 2). During the 10 years between the first and latest surveys, the average price per cubic foot has risen from \$.35 to \$.52. In 1958, treefern accounted for 13 percent of the total value reported. This percentage rose to 22 in 1960, dropped to 17 in 1963, and increased to 23 in 1967.

RELIABILITY OF ESTIMATES

The reported amounts and values of products probably included some errors. Most of the individuals who gave estimates either did not keep detailed accounts or did not reveal them. Also, in some instances, they had trouble in assigning volumes or values. Except for sawlogs and treefern, most of the materials have no established markets as primary products, as for example, fence posts and firewood cut by ranchers for their own use; and firewood cut by charcoal makers to be processed in their own kilns.

Some producers of fuelwood and fence posts may have been missed although such omissions would have only minor effects. The estimates in this report should be viewed more as indicators of trends than as accurate measures of output.

FOOTNOTES

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The Author

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