ABSTRACT: A survey of the output of primary forest products in Hawaii in 1963 showed that the total value was $230,000. Compared with 1960, the total quantity of material declined but total value increased.

Many Hawaiians may think that local forest products are unimportant. Yet in 1963, primary forest products were worth $230,000. These products included logs for craftwood, veneer, and lumber, treefern logs, fuelwood, and fence posts. They helped to support local industries. Their ultimate value for retail sale is not known but obviously is many times greater than $230,000. Further, we know from another source that Hawaii can support a much larger primary forest industry than that found by our survey in 1963.

METHODS

Members of the Hawaii Forestry Division made the field survey as a followup on similar surveys in 1958 and 1960. First, they sent questionnaires to harvesters, primary users, and manufacturers of forest products. Then they personally visited non-respondents to get the desired information. Also they visited producers to check on possible duplication or to ask about questionable reports. Thirty nine individuals or organizations sent replies, including 7 that had no production and 4 producers that had not reported before.

1The author is Forest Ecologist, Forestry Division, Hawaii Department of Land and Natural Resources and Consultant, U. S. Forest Service. The survey described in this report is a cooperative study by the Forestry Division and the Pacific Southwest Forest and Range Experiment Station.


RESULTS

Let’s look at what happened in 1963 compared with 1960. On the whole, output was similar although not identical. But when compared product-by-product some important changes can be seen.

LOGS

Surprisingly, log production dropped although value went up. In 1960 the cut was 980 thousand board feet; in 1963 it fell to 913 thousand board feet (table 1). However, total value of logs jumped from $86,000 to $143,000.

We believe the rise in value of logs resulted from a shift in production to more craftwood and less lumber. We could not determine the distribution of logs between lumber and craftwood in 1963 but have some evidence that they were about equal. This contrasts with 1960 when sawlogs for lumber production made up 85 percent of the cut. Trees used for craftwood are more costly to log than trees used for lumber.

We examined the output of logs by species and uses. Koa made up about one third of the total production. This species is used partly for craftwood, partly for lumber, and to a small extent for veneer. Monkeypod, which is a craftwood, and forest plantation trees, which mainly go into lumber, comprised about equal parts of the remainder. The principal planted trees were eucalypts (robusta, saligna, and blackbutt), silk-oak, Australian redcedar, and tropical ash. Robusta eucalyptus exceeded the combined total of all the other planted trees. Milo, mango, Norfolk-Island-pine and albizzia are other species that were mentioned, but the quantities cut were very small. Milo is used only for craftwood and mango for either craftwood or lumber. Albizzia and Norfolk-Island-pine yield lumber.

The survey did not investigate imports of craftwood, but they should be mentioned here. We believe that imported monkeypod craftwood and partly processed craftwood products greatly exceeded the volume of this species that was harvested in Hawaii. Much more of this valuable wood can and should be grown in the State. During the past two years the Division of Forestry has planted rather modest numbers of monkeypod trees. In the near future this program will be stepped up.

OTHER PRIMARY PRODUCTS

Treefern logs changed little in volume or value.

Fuelwood cutting dropped almost 50 percent from 1960 to 1963. We cannot explain the reported decline in unit value.

Negligible amounts of logs for veneer are included in the output of logs—9,000 board feet in 1960 and 4,000 board feet in 1963.
The estimated harvest of fence posts went down very substantially, from a total of 37,000 to 22,000. Because of the higher unit values reported in 1963, total value went up a little.

Table 1. -- Estimated total production of primary forest products in Hawaii, 1960 and 1963

<table>
<thead>
<tr>
<th>Primary forest product and unit of measure</th>
<th>Production</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19603 : 1963</td>
<td>19603 : 1963</td>
</tr>
<tr>
<td>Logs (M bd. ft.)</td>
<td>980 : 913</td>
<td>86,000 : 149,000</td>
</tr>
<tr>
<td>Treefern (M cu. ft.)</td>
<td>115 : 118</td>
<td>44,000 : 39,000</td>
</tr>
<tr>
<td>Fuelwood (cords)</td>
<td>1,500 : 847</td>
<td>45,000 : 19,000</td>
</tr>
<tr>
<td>Posts (pieces)</td>
<td>37,000 : 22,000</td>
<td>22,000 : 23,000</td>
</tr>
<tr>
<td>All</td>
<td>--</td>
<td>197,000 : 230,000</td>
</tr>
</tbody>
</table>

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

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

3 Source: Nelson 1962, loc. cit.

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 correct volumes or values. Except for treefern logs, most of the materials have no established markets as primary products. Here are some examples:

(1) Fence posts and firewood cut by ranchers for their own use.
(2) Firewood cut by charcoal makers to be processed in their own kilns.
(3) Logs cut by sawmill operators on their own logging operations.

Some producers of fuelwood and fence posts may have been missed although such omissions would have only minor effects. We believe the estimates should be viewed more as indicators of trends than as accurate measures of output.
CONCLUSIONS

If you look at the quantities of each product cut, treefern was the only item that held its own in 1963. Log production dropped 7 percent. Fuelwood and fence post harvests both went down over 40 percent.

In terms of value of products the findings are much different:

(1) All products combined--up 17 percent.
(2) Logs--up over 70 percent.
(3) Treefern--down more than 10 percent.
(4) Fuelwood--down almost 60 percent.
(5) Posts up 5 percent.