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# The Production of Bark in Idaho's Forest Industries

by

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The objective of this report is to furnish information that will lead to more complete utilization of bark in Idaho. It shows where the bark is being produced, by volume of each species. With this information at hand, the potential users of bark should be in a better position to select locations for their bark utilization facilities.

Some wood processing plants in Idaho are closing down because they cannot meet the waste disposal standards of Idaho's air and water quality laws. Landfills offer only a short-term solution to this problem. The cost of approved bark-burning equipment is often prohibitive to small companies.

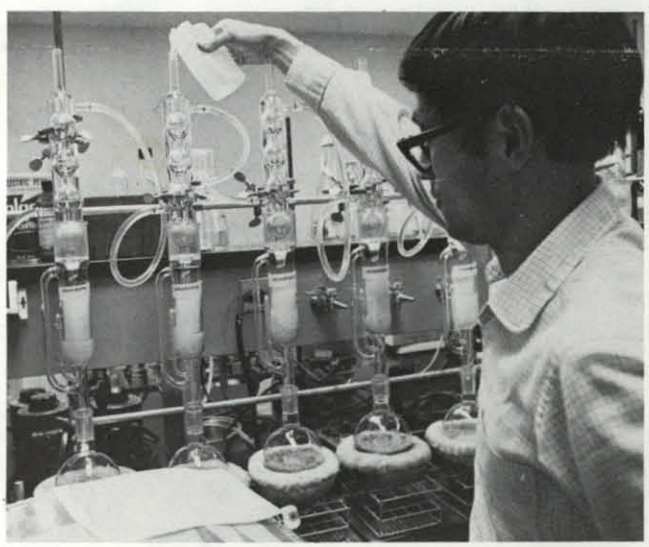
A second consideration also relates to the economy of Idaho whose forest industries rank second in importance only to agriculture. Idaho's communities just cannot afford to destroy bark because today it is becoming a valuable raw material. Many marketable products can be made from bark (3) and neighboring states are producing these products to their economic advantage (4).

At present only a small part of Idaho's bark is used as a source of energy. Here is an excellent opportunity for better utilization of this natural resource to help relieve the current energy crisis.

In preparing this report, the Idaho Board of Scaling Practices kindly allowed us to use their log production figures for their first full year of operation, July 1, 1971 - July 1, 1972. Each reporting mill was contacted to determine its species distribution. Board feet log scale was converted to cubic feet of wood using factors published by the University of Washington's Institute of Forest Products (1). Cubic feet of wood were then converted to bark volumes using conversion data published by the Canadian Western Forest Products Laboratory (2).

The locations of bark-producing mills are shown in Figure 1. The total volume of bark produced in the mills of each county is also shown. Bark volumes are expressed in cunits (1 cunit equals 100 cubic feet).

Table 1 shows the cunits of bark of each species that are produced in each county. This information is important because the properties of bark vary depending on tree species. Some types of bark are especially suited to certain products. For example, because of its fiberous nature, the bark of western redcedar makes strong structural board.



**Bark research being carried out in the Wood Utilization laboratory at the University of Idaho. This is part of cooperative work between the Boise Cascade Corp. and the University's Chemistry Department, College of Agriculture and College of Forestry, Wildlife and Range Sciences.**

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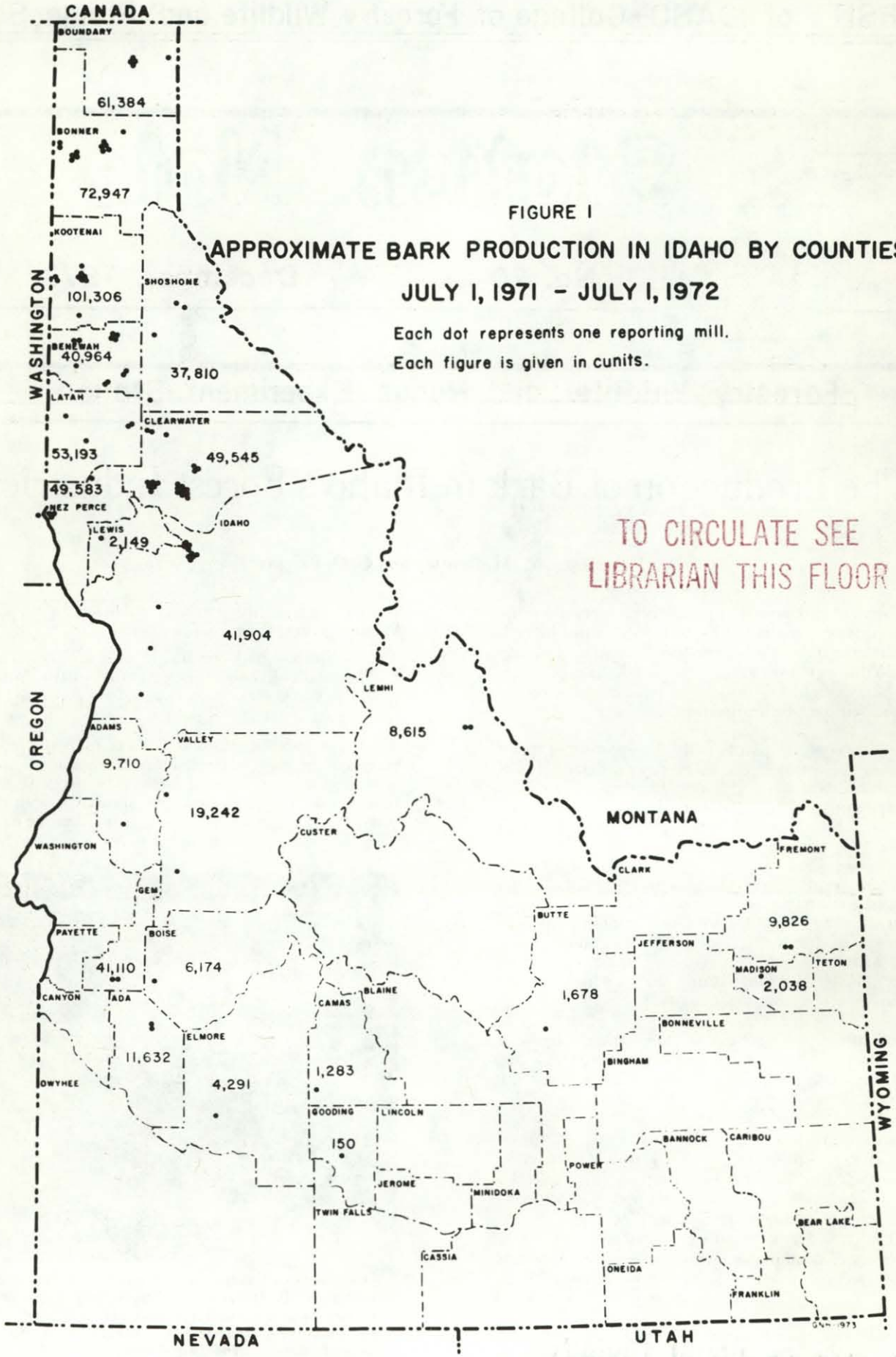


FIGURE I

## APPROXIMATE BARK PRODUCTION IN IDAHO BY COUNTIES

## JULY 1, 1971 - JULY 1, 1972

Each dot represents one reporting mill.

Each figure is given in cunits.

Table 1. Approximate bark production in Idaho
by counties and species, July 1, 1971-July 1, 1972 (cunits)

| County | Douglas-fir | White fir | Douglas-fir* & Larch | White pine | Ponderosa pine | Lodgepole pine | Cedar | Spruce | Hemlock | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Ada | 1,063 | 859 | 2,728 | | 6,282 | | | 700 | | 11,632 |
| Adams | 2,395 | 1,387 | 104 | | 4,967 | 30 | | 827 | | 9,710 |
| Benewah | | 19,477 | 14,388 | | 4,054 | 115 | 779 | 1,111 | 1,040 | 40,964 |
| Boise | 1,260 | | | | | 4,914 | | | | 6,174 |
| Bonner | | 13,947 | 24,059 | 12,814 | 9,876 | | 5,519 | 2,529 | 4,203 | 72,947 |
| Boundary | | 12,084 | 22,143 | 10,086 | 7,051 | | 3,429 | 6,591 | | 61,384 |
| Butte | 1,628 | 32 | | | | 8 | | 10 | | 1,678 |
| Camas | 1,283 | | | | | | | | | 1,283 |
| Clearwater | 7,512 | 18,552 | 9,859 | 3,474 | 4,928 | 71 | 5,149 | | | 49,545 |
| Elmore | 1,780 | | | | 2,511 | | | | | 4,291 |
| Fremont | 3,323 | 9 | | | | 6,494 | | | | 9,826 |
| Gem | 22,124 | 2,964 | 781 | | 14,554 | 267 | | 420 | | 41,110 |
| Gooding | | | | | | 147 | 3 | | | 150 |
| Idaho | 2,050 | 5,694 | 7,261 | 10,670 | 8,909 | 277 | 3,811 | 3,232 | | 41,904 |
| Kootenai | | 19,352 | 25,935 | 23,640 | 15,880 | 41 | 9,767 | 2,661 | 4,030 | 101,306 |
| Latah | 11,297 | 5,330 | 2,382 | 10,703 | 1,630 | | 21,756 | 95 | | 53,193 |
| Lemhi | 7,232 | | | | 1,319 | | | 64 | | 8,615 |
| Lewis | 829 | 480 | | | 840 | | | | | 2,149 |
| Madison | 2,038 | | | | | | | | | 2,038 |
| Nez Perce | 8,988 | 17,191 | 2,216 | 13,362 | 2,139 | | 5,401 | 286 | | 49,583 |
| Shoshone | 998 | 8,133 | 11,854 | 7,343 | 5,681 | | 2,225 | 1,565 | 11 | 37,810 |
| Valley | 9,086 | 1,591 | 595 | | 4,376 | 433 | | 3,161 | | 19,242 |
| Total | 84,886 | 127,082 | 124,305 | 92,092 | 94,997 | 12,797 | 57,839 | 23,252 | 9,284 | 626,534 |

*This Douglas-fir bark is in addition to that shown in the Douglas-fir column.

Figure 1 and Table 1 present approximate bark volumes. Users of this report should be aware that our method of calculating bark volumes does not include bark on logs currently scaled as culls. Our calculation does not allow for bark fissures and voids nor does it allow for loss of bark during log handling.

Idaho's log production, as reported to the Idaho Board of Scaling Practices was 1,855,700,878 board feet for the twelve month period on which this report was based, July 1, 1971 - July 1, 1972. The volume of bark produced in a subsequent year may be estimated from that year's log production by interpolation.

**Literature Cited**


1. _____Conversion factors for Pacific Northwest forest products. Institute for Forest Products, University of Washington, Seattle, 20 pp.
2. Dobie, J. and D. M. Wright. 1972. Conversion factors for the forest products industry in Western Canada. Information Report VP-X-97. Western Forest Products Laboratory, Vancouver, B.C., 60 pp.
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4. , U.S.D.A. Forest Service, State and Private Forestry, Northeastern Area, and Northeastern Forest Expt. Sta. 1972. Directory of bark product producers, brokers and consultants, and manufacturers of bark processing machinery in the U.S. Upper Darby, Pa., 45 pp.