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HARVESTING MINOR FOREST PRODUCTS

IN THE PACIFIC NORTHWEST

by

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Forests of the Pacific Northwest yield a number of secondary or so-called minor forest products. These include those smaller, side-line items of commercial value that can usually be harvested without intensive management or cultivation. They are generally only incidental to a primary use of the land for sawtimber or pulpwood production. In most cases they can be harvested by individuals working alone, without expensive equipment.

These minor products provide important employment opportunities, and are a valuable addition to the forest's output of useful goods and services. Though markets for some of them are not large, minor products furnish local employment in rural areas where other sources of employment may be limited, and they offer income opportunities to people who wish self-employment in the out-of-doors. Several hundred local harvesters and producers are employed, with earnings estimated at from \$10 to \$12 million annually. Additional income is generated from packaging and processing operations. Many of these latter operations have grown to be important medium-sized enterprises.

Minor forest products also provide intermediate income opportunities for landowners who are waiting for main timber crops

to mature, and they can be an incentive to hold land which would otherwise produce no income for long periods. A list of minor forest products includes:

- Christmas trees and boughs
- Swordfern, salal, and huckleberry greenery
- Tree seed cones
- Cascara bark and other crude drug materials
- Shake bolts and excelsior bolts
- Fence posts, fuelwood, and charcoal wood
- Burls and specialty woods

The landowner's permission should be obtained before any of these products are harvested on either private or public land. In many areas harvesting is managed and each picker or cutter is allotted a certain territory so he can plan his operations and be encouraged to protect the area for further crops. State permits are required for commercial harvesting of some minor forest products.

CHRISTMAS TREES AND BOUGHS

The public has come to realize that cutting of Christmas trees is not a threat to the Nation's future timber supply. Usually the young forest has many more trees than there is room for in a mature stand, and careful thinning will remove many trees that would otherwise be crowded out. Some areas are managed for Christmas trees in preference to timber trees. Where both crops are desired, the owner can select the future crop trees for timber production and mark some of their foliage with a paint gun. Then the Christmas tree cutters may take out all the unmarked trees.

Some of the large Christmas tree producers maintain their own plantations or cultured natural stands. Most Christmas tree growers practice some type of culture in an attempt to control spacing, growth, and tree form.

Principal out-of-State markets are in California and the Southwest. Some small producers truck their own trees to principal cities and sell either to wholesalers or to individual retail lots, but the majority prefer to sell directly to a wholesale shipper or buyer. A few have had success in offering choose-and-cut sales to the public, but considerable promotion is usually required to attract sufficient customers.

As in any business, experience counts a great deal toward success, especially in marketing the product. When selling to a distant buyer, one should make arrangements several months before the Christmas season, preferably by October 1. Agencies listed at the end of this report can assist in locating wholesale buyers.

Christmas tree stumpage prices in 1959 averaged 15 to 40 cents a tree for wild-grown Douglas-fir. Cultured trees or other species brought considerably more. Retail prices in major Northwest cities are about 10 times the stumpage price for any given grade of tree. This illustrates the relative value of the various steps in the marketing process, as compared with growing of the crop.

Some producers have done well selling Christmas boughs, cones, and wreaths, either in large lots to wholesale dealers and florists or to individual families on a house-to-house basis. Boughs may be cut from alpine trees or from branches trimmed from poorly shaped trees. Clean, fresh cones of sugar pine, Jeffrey pine, and ponderosa pine are especially attractive in Christmas wreaths and door swags.

SWORDFERN, SALAL, AND HUCKLEBERRY GREENERY

These decorative greens are purchased by several packing plants maintained in western Oregon and Washington, and shipped to wholesale florists throughout the United States. They grow best in shaded areas under the crowns of larger trees, or in open shade. When found on open cutover land, they tend to be of poor quality.

Swordfern

Picking of swordfern begins in the spring of the year after the new tips have developed. The best growth occurs in shady fir and hemlock forests west of the Cascades, in locations where the ground is cool and moist. Studies by the Pacific Northwest Forest and Range Experiment Station have found that individual fern plants are not seriously damaged so long as not more than 25 percent of the fronds are cut in a single year. In a carefully planned harvest the picking may be spread over most of the year. Open-grown ferns should be harvested first, then those under alder as they may be stained by falling alder leaves. Next to be harvested are those under Douglas-fir stands, and finally those in moist locations under dense western redcedar and Sitka spruce. Heavy picking should be avoided in October, when the plants are storing food for the next year's growth.

Salal

Salal (lemon leaf) is another important florists' green. Full, flat sprays are desired, and they must be free of discolorations, brown spots, or sunburned edges. As with swordfern, not more than one-fourth of the plant should be picked in any one year. The best sprays come from areas with high, overhead shade which is not too dense. Sprays should not be allowed to dry out while in transit to the packing station.

Huckleberry

Flat sprays of evergreen huckleberry should be picked 25 to 30 inches in length. Side branches should be closely spaced on the sprays to avoid a spindly appearance. As with swordfern and salal, careful selection of branches leaves a sufficiently vigorous plant to put out ample new growth the following year, and the new sprouts may be of even better form. Old plants with woody, low-productive stems can often be improved by pruning them off near the ground level to stimulate new sprouts.

Where shade is too dense, the lower limbs of overhead trees may be pruned off to increase the amount of light and the growth of huckleberry.

TREE SEED CONES

Reforestation programs require large amounts of forest-tree seed, both for planting in nurseries and for aerial seeding on the land. Heavy cone crops occur only every few years, and in the past few years there has been a good demand for seed. Cones are picked from standing trees by climbing or with the aid of special tools. They also may be gathered from squirrel caches or from felled trees in logging operations.

Origin of the seed is of great importance, and cone buyers require careful records of the location and elevation from which each bag of cones is obtained. Because some growth habits are inherited, buyers avoid cones from stunted, crooked trees, or those with excessive branching. Dealers welcome early reports from prospective collectors who have located a good cone crop.

A number of commercial forest-seed companies and several of the larger timber companies purchase seed cones. Names and

addresses of the seed companies may be obtained from any Farm Forester or the State forestry office; names of the timber companies, from the Industrial Forestry Association, 1410 S. W. Morrison St. , Portland, Oreg. , and the Western Pine Association, 510 Yeon Building, Portland. These associations themselves do not purchase cones.

Although U. S. Forest Service and Bureau of Land Management field offices occasionally purchase seed cones, they more often purchase processed seed in large lots, on contracts containing rigid specifications for certification and inspection.

CASCARA BARK AND OTHER CRUDE DRUG MATERIALS

Cascara

The bark of the cascara tree is purchased by many feed stores and other dealers throughout western Oregon and western Washington. It is then shipped to processing plants which extract a medicinal concentrate used as a laxative or tonic. Demand has slackened in recent years due to synthetic substitutes and to competition from a similar plant grown in Asia.

Bark is collected during the growing season when it can easily be removed, from the time the tree comes into leaf in the spring to about the end of August. Bark should be cleaned of moss and lichens before peeling and dried quickly with good ventilation to avoid mildew.

Washington State law requires that any person cutting or removing cascara bark from land other than his own shall have written permission from the landowner, whether public or private. No trees less than 3 inches in diameter may be felled, cut, or peeled. All trees must be felled before peeling, leaving an unpeeled stump at least 6 inches above the ground. This encourages sprouting the following year to produce another tree, although usually there are several sprouts which must be thinned out for best results. These practices are not spelled out in Oregon forest law, but it would be wise for Oregon operators to observe the same requirements.

Trees to be peeled should preferably be at least 4 or 5 inches in diameter, and for full utilization all limbs down to 1 inch in diameter should be peeled. With peeling restricted to the larger trees, there should be no danger of exhausting the supply.

A few persons have tried growing cascara trees in plantations, but results have generally proved disappointing.

Other Crude Drug Materials

Minor markets exist for other crude drug materials, including princespine (common pipsissewa), Oregongrape, wildginger, and other plants. There is no longer a market for foxglove.

Some Douglas-fir trees contain seams or pockets of pitch, which may be collected and sold to crude drug dealers. This material is used for paint, for certain medicinal purposes, and for optical cement.

SHAKE BOLTS AND EXCELSIOR BOLTS

Western redcedar shake bolts may be salvaged from old snags and windfalls. These may be sold in 26-inch lengths to local concerns manufacturing shakes, but more commonly are first split into shake blanks by the cutter. When split by the cutter, they should be cut in lengths of either 25 or 32 inches.

Larger bolts of black cottonwood are used in the manufacture of excelsior. At the present time two excelsior plants are known to be in operation--at Seattle, Wash., and Springfield, Oreg. In August 1959 one concern was paying \$20 per cord for 54-inch pieces, split and peeled, delivered to the plant. Further information on marketing these products may be obtained from agencies listed at the end of this report.

FENCE POSTS, CHARCOAL WOOD, AND FUELWOOD

As farming becomes more specialized, farm operators are turning more to commercially produced fence posts. Western redcedar heartwood is a favored material. So is western juniper in localities where it grows. Lodgepole pine and Douglas-fir may also be used, but these two species should be treated with preservative before installed. At least two treating plants near Portland regularly purchase fence-post material.

Highway posts and guard rails are other products that can be made from small roundwood, although specifications are more exacting. Treated, machine-turned posts of uniform size are generally required in order to meet modern highway needs. Snow stakes are still another outlet for small forest material.

Three charcoal plants were in production in 1959 in Oregon and Washington, using roundwood as raw material. Small charcoal producers generally operate seasonally or periodically--depending on the operator's ability to find markets. Hardwoods with high wood density are the preferred raw material because they produce highest yields and have the best burning qualities.

At present most charcoal consumed in the Northwest is imported from other States, but there is no reason why more of it cannot be produced here. Growing popularity of home barbecuing has brought increased demands for charcoal. The greatest volume is consumed in the form of briquettes, although some users prefer the faster starting lump charcoal.

Preferred species for commercial fuelwood are Oregon white oak, Pacific madrone, Douglas-fir, and red alder.

BURLS AND SPECIALTY WOODS

Abnormal swellings (burls) produce highly figured wood, used for table tops and other furniture parts in the form of thinly sliced veneer. The principal species from which burls are taken in the Pacific Northwest is bigleaf maple. Other species used are Oregon-myrtle (California-laurel) and Pacific madrone. Not all burls have a commercial value, so arrangements should be made with the prospective buyer to inspect the trees before cutting. Most dealers require a minimum of 500 pounds for a merchantable burl.

Some maple logs have an irregular surface which gives a wavy, figured grain to the wood. Burl dealers purchase 8-foot logs containing such figured grain.

High-quality archery bow staves may be made from Pacific yew. This tree, which seldom attains a large size, occurs singly or in small groups scattered through the forest in many parts of the Northwest. Slow-growing, close-grained trees are preferred. Sporting-goods stores can often give information on bow manufacturers who are in the market for stave material. Yew bows, and bows of other wood species, have had strong competition in recent years from bows made primarily of glass-fiber materials.

At present there is good demand in southwestern Oregon for Port-Orford-cedar arrow wood, split from clear, fine-grained bolts.

Oregon-myrtle, western juniper, Pacific yew, and bigleaf maple are used for a variety of novelties and decorative turned items.

OTHER MINOR PRODUCTS

Wild fruits and berries are often purchased commercially for use in pies and preserves. The most well known is the wild huckleberry. Additional wild fruits used for preserves include wild blackberries and raspberries, wild plum (Klamath plum), and blueberry elder.

Douglas-fir bark from young sawtimber-size trees is purchased by a leather tannery at Dallas, Oreg. Most of the supply comes from small sawmills and local piling operators.

Other minor products include tree moss, wild horticultural plants, and material for rustic furniture and floral decorations. Florists use a large amount of sprays from the brilliantly colored vine maple after autumn frosts have turned its leaves. Finely branching manzanita stems from southern Oregon brushfields also make pleasing fillers or accent pieces for floral decorations. Another use of forest materials is for manufacture of corsages and table decorations from small cones, seeds, and leaves which have been dried and gilded.

OBTAINING FURTHER INFORMATION

Further information on harvesting and marketing minor forest products may be obtained from:

Oregon State Board of Forestry, Salem, Oreg.

Washington State Department of Natural Resources,
Olympia, Wash.

Extension Forester, Oregon State College, Corvallis, Oreg.

Extension Forester, Washington State University, Pullman,
Wash.

Washington Institute of Forest Products, Anderson Hall,
University of Washington, Seattle, Wash.

Regional Forester, U.S. Forest Service, Portland, Oreg.