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## Chapter



# Forest Products from Your Woodland

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**Y**our woodland property may contain a wealth of forest products. When you talk about forest products, most owners think of timber and other traditional wood products such as posts, poles, and firewood. In addition, there's a host of lesser known products commonly referred to as *special forest products*, including a wide variety of commercial understory plants and mushrooms.

The total value of forest products on your woodland may be substantial. Most of the value probably is in your timber, depending on its quality and age, growth rate, volume per acre, and the size of your acreage. For example, a 50-year-old fully stocked stand of Douglas-fir may contain 25 to 50 thousand board feet (MBF) per acre with an average net value of \$350 per MBF. That's a net value of \$8,750 to \$17,500 per acre. If you own 5 acres, that comes to \$43,750 to \$87,500. Good stewardship can enhance this asset for the long term, for income and other purposes.

This chapter is an overview of common and not-so-common forest products that may grow on your woodland. Also, we suggest how to approach harvesting timber and special forest products.

## Harvesting special forest products

You might be surprised at what is growing in your woodland's understory. Special forest products include floral greenery, conifer boughs, edible and medicinal plants, mushrooms, pine cones, and specialty woods.

Many of these can be harvested for personal use or sold commercially to local buyers. Prices vary considerably, depending on season, weather, and product quality. Contact local buyers to find out what they are buying (what's in demand) and what they are paying.

Special forest products are a potential source of additional income, although you probably won't get rich. Even if income is not your motivation, however, harvesting plants for personal use can be fun, especially harvesting mushrooms and berries.

Edible plant parts include leaves, seeds, fruits, roots, and tubers. Native Americans foraged for the tubers and roots of local native plants and the culturally

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important huckleberry. Some edible plants are:

- Blackberry
- Huckleberry
- Chokecherry
- Stinging nettle
- Miner's lettuce
- Fiddlehead fern

Several species of mushroom can be harvested for personal use or sold to local buyers. **Caution:** Make sure you know how to identify edible mushrooms. Several lookalikes are highly poisonous. Mushroom crops can vary a lot from year to year and place to place. Some of the more common edible wild mushrooms are morel, chanterelle, and Matsutake (pine mushroom).

Leaves and small branchlets of some understory plants and shrubs often are used in floral arrangements. Normally they are picked and sold in small bunches. Some of the more common ones used as floral greens are:

- Sword fern
- Evergreen huckleberry
- Scotch broom
- Salal
- Beargrass
- Oregon-grape
- Oregon boxwood

Conifer boughs also are used in floral arrangements, but the big demand is for Christmas arrangements and wreaths. Usually only the outer branch tips are harvested. Boughs are harvested from these tree species:

- Noble fir
- Port-Orford-cedar
- Western redcedar
- Incense-cedar
- Western juniper (with berries)
- Western white pine
- Coast redwood

Medicinal plants are sold as herbs or used in the manufacture of pharmaceuticals. Buyers are very particular about the condition and quality of medicinal plants. Plants harvested for medicinal properties include:

- Cascara
- St. Johnswort
- Pacific yew
- Prince's-pine
- False hellebore
- Wild ginger

You can harvest special forest products yourself and sell to local buyers. Quality is important to buyers, so if any plant part looks discolored, damaged, or diseased, don't harvest it. If you have a good crop of ferns or other floral greens but aren't interested in harvesting them yourself, you might consider leasing harvest rights to a local picker. Before you sign any agreements, however, you probably will want to ask the picker for references and then check them out.

As with any resource, you don't want to overharvest. Maintaining a sustainable harvest over time is key to good management. Consider harvesting plants and mushrooms on just part of your property, or consider harvesting in alternate years to give plants a chance to recover and reproduce.

If you plan to harvest special forest products on property other than your own, you need to get permission from the landowner. If the lands are federal (U.S. Forest Service or Bureau of Land Management), you will need a permit unless the products are for your personal use only. For more information, refer to *Special Forest Products*, in the sleeve at the end of this chapter, and to the OSU Extension publications listed under "Other resources—publications."

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## Harvesting trees and timber

Although you might not want to manage your woodland intensively for timber, you may have to remove trees from time to time because they have been damaged by wind, insects, disease, or fire. Or, you may find that a given area has too many trees and not enough water and nutrients to go around; thus thinning (see Chapter 5) is necessary to improve and maintain the health of your remaining trees.

Removing a few trees, particularly around your home, may require the services of a certified arborist. Removing trees out in your woodland may require the experience and equipment of a logging operator.

Regardless of who does the needed work, if removing some trees becomes necessary or desirable, you may be able to earn some money in the process.

Woodland property of even a few acres may have a substantial financial value in forest products. Timber can be harvested without damaging remaining trees, wildlife habitat, or aesthetic quality. In many cases you actually may increase the beauty and health of your trees by thinning—and be paid for it at the same time.

No aspect of woodland management has such an immediate and long-lasting effect as removing trees. Once a tree has been removed, you cannot put it back. So before you begin any harvesting operation, here are a few things you need to consider.

First, do you have access to all parts of your property?

Getting in and out by car or pickup is a lot different from operating a logging truck (see suggested reading on woodland roads, at the end of this chapter).

Be sure any necessary equipment can negotiate the roads on your property. If you are crossing other private property, check to see whether there are any restrictions on transporting forest products. If you don't have an easement, you will need to get one from the owner(s) of the property you plan to cross, even for a temporary or one-time use. The easement should be in writing (see Chapter 12).

Second, do you have enough trees to warrant harvesting?

Any timber harvest has a certain cost, and you'll want to know whether the value of the trees removed can cover these costs. As a rule of thumb, it takes at least one truckload of logs to cover your out-of-pocket expenses. This equates to about 3 MBF, or about 15 to 20 trees that are 12 inches in diameter when measured 4.5 feet above ground level (known as *diameter at breast height*, or *DBH*). If you have less than a truckload, the operation could very well mean a financial loss. Any timber volumes greater than a single truckload greatly increase your chances of realizing some profit.

Finally, do you have trees that are of merchantable value?

Merchantable logs usually need to be at least 5 inches in diameter on the small end of the log, and logs must be reasonably straight.

Most conifer species have a value at the local mill, especially Douglas-fir, all the true firs, ponderosa pine, cedars, western hemlock, and Sitka spruce. Hardwoods are a different story. Red alder is the primary merchantable species; other species' merchantable values depend on quality, mill location, and time of year. Even if your trees don't meet specifications for merchantable timber, nearly all trees have financial value as posts, poles, or firewood.

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# Harvesting timber

Most small woodland owners have little or no experience in harvesting timber and marketing logs or timber. A successful timber harvest requires certain steps and skills. If you're not sure you have the skills, it might be time to contact a consulting forester (see "Other resources—Internet" at the end of this chapter).

Before beginning any operation, you must file a "Notification of Operations" with your local Oregon Department of Forestry (ODF) office. This notification also requires that you comply with the Oregon Forest Practices Act (see Chapter 12). The Forest Practices Act sets requirements for slash disposal, burning, water protection, and reforestation.

Whether you do the work yourself or get help from a consultant, be sure to cover the following points.

## **Clarify goals and objectives**

You need to define what is important to you and why you want or need to harvest. Recognize that there will be tradeoffs depending on your objectives. Remember, a timber harvest done correctly can enhance and help pay for improvement on your property without detracting from wildlife habitat or aesthetics.

## **Find the right advice**

Because many woodland owners have limited experience in timber harvesting, it is important to speak with individuals who have "been there, done that." Speak to landowners who have harvested timber on their properties. In addition, talk to an ODF service forester, an OSU Extension forestry agent, reputable loggers, log buyers,

and private consultants. If the process seems overwhelming to you, a private consultant can be a very good option.

## **Structure the sale**

The most common method is to sell timber as logs delivered to a mill. Another method is to sell trees before they're cut (stand trees), often called a *stumpage sale*. Too many woodland owners continually use the same type of sale without considering the advantages and disadvantages of each type. Also, the structure of your timber sale may have income tax implications. (For more information, see *Federal Income Taxation for Woodland Owners: An Overview* in "Other resources—publications" at the end of this chapter.)

## **Scope out the market**

If you're like most woodland owners, timber sales will be few and far between, so you'd better do it right because you may not get another chance. Timing is probably the most important element when marketing timber or logs. Log prices can change substantially during the year depending on supply and demand. Another important question is which mill you want to sell to. Don't get hung up on selling to the nearest mill. Each milling facility has certain tree or log characteristics it is seeking. Therefore, the right mill for you may not be the closest one.

## **Measure and mark timber**

This is especially important if you're planning a thinning operation. Select the trees you want to remove and mark them with paint. Don't leave selection to the logger or log buyer because that person may not necessarily be looking out for your best interests. For information on how to measure timber, see *Measuring Timber Products Harvested from Your Woodland* (sleeve).

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### **Select a logger**

Finding a logger who will carry out your wishes in an environmentally sensitive way is important. You want to find a logger who will work *with* you in carrying out your objectives. Develop a list of reputable loggers by talking to neighbors, ODF service foresters, OSU Extension forestry agents, log buyers, and consultants. Invite prospective loggers to visit your property to see and discuss what kind of timber harvest you have in mind. If appropriate, make arrangements to view their last logging job before making up your mind.

### **Solicit and evaluate offers**

Don't take the first offer that comes your way. Because your timber may have substantial value, sell it the same way you would sell your house: get multiple bids. More individuals probably are interested in your timber than you realize. Be aware that the highest bid for your timber may not always translate into the highest net proceeds to you. This is because the mill's distance from your woodland will affect trucking costs.

## **Forest products' characteristics**

Whether you're conducting a timber sale or just cutting a few trees around the house, let's look at various forest products and their characteristics.

### **Firewood**

- Used for home heating
- Minimal volumes required if selling
- Numerous buyers
- Labor intensive/low technology
- Virtually all species acceptable

- Sold by: the cord. A cord of wood, by law, is a stack 4 x 4 x 8 feet (128 cubic feet). Sometimes you'll hear people talk about *face cord*, but that term has no legal definition and almost certainly is less than 128 cubic feet.

### **Chips**

- Used for pulp for paper
- At least one truckload required (24 tons) for minimal volumes
- Limited number of buyers
- Suited to trees that are smaller in diameter and lower in quality
- Demand varies by species
- Sold by: the ton

### **Posts**

- Used for fence posts
- No minimum volumes required
- Limited number of buyers
- Few merchantable species
- Labor intensive
- Small dimensions (3 to 6 inches diameter by 7 to 10 feet long)
- Sold by: the piece

### **Poles**

- Used for utility poles
- At least one truckload required (3 MBF) for minimal volumes
- Limited number of buyers
- Very specific product requirements. Therefore, do not try this on your own; use a consultant.
- Premium prices
- Few merchantable species
- Sold by: the thousand board feet

### **Domestic sawlogs**

- Used for lumber, large timbers, and veneer
- At least one truckload required (3 MBF) for minimal volumes
- Large number of buyers

- Standard grading and scaling rules
- Many merchantable species and sizes
- Sold by: the thousand board feet

### **Export sawlogs**

- Used for lumber, large timbers, and veneer
- At least one truckload required (3.5 MBF) for minimal volumes
- Adequate number of buyers
- High-quality material
- Few merchantable species (primarily Douglas-fir)
- Log specifications vary by log buyer
- Sold by: the thousand board feet

## **Other resources**

### **In the sleeve**

*Special Forest Products*, CIS 952. C. C. Schnef. 1992. Moscow: University of Idaho Cooperative Extension System, 4 pp.

*Measuring Timber Products Harvested from Your Woodland*, EC 1127. Paul Oester and Steve Bowers. 1999. Corvallis: Oregon State University Extension Service, 20 pp.

### **Publications**

OSU Extension publications related to timber harvesting:

*Timber Harvesting Options*, EC 858. John Garland. 1997. 2 pp. No charge.

*Designated Skid Tails Minimize Soil Compaction*, EC 1110. John Garland. 1997. 8 pp. \$1.50

*Planning Woodland Roads*, EC 1118. John Garland. 1998. 8 pp. \$1.50

*Felling and Bucking Techniques for Woodland Owners*, EC 1124. John Garland. 1996. 16 pp. \$1.50

*Tools for Measuring Your Forest*, EC 1129. Mike Cloughesy. 1997. 8 pp. \$1.50

*Road Construction on Woodland Properties*, EC 1135. John Garland. 1993. 12 pp. \$2.00

*Designing Woodland Roads*, EC 1137. John Garland. 2000. 28 pp. \$3.00

*Maintaining Woodland Roads*, EC 1139. Paul Adams. 1997. 8 pp. \$1.50

*Hauling Logs from Woodland Properties*, EC 1140. John Garland. 1997. 8 pp. \$1.50

*Stand Volume and Growth: Getting the Numbers*, EC 1190. Richard Fletcher and William Emmingham. 2001. 20 pp. \$2.50

*Oregon's Forest Practice Rules*, EC 1194. Paul Adams. 1996. 24 pp. \$1.00

*Selling Timber and Logs: Seven Steps to Success*, EC 1384. Scott Reed. 1994. 36 pp. \$2.50

*Managing Your Own Timber Sale: Guidelines for Success*, EC 1487. Norman Elwood. 1997. 32 pp. \$3.00

*Federal Income Taxation for Woodland Owners: An Overview*, EC 1526. Norman Elwood, Chal Landgren, and Susie Gregory. 2001. 8 pp. \$1.50

OSU Extension publications related to special forest products:

The following titles are in the *Special Forest Products* series. Reports are \$1.00 each.

*Harvesting and Marketing Scotch Broom*, EC 1467. Steve Clements. 1998. 4 pp.

*Harvesting and Marketing Edible Wild Plants*, EC 1494. Steve Clements. 1998. 4 pp.

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*Harvesting and Marketing Medicinal Wild Plants*, EC 1495. Steve Clements. 1998. 4 pp.

*Harvesting and Marketing Edible Wild Mushrooms*, EC 1496. Greg Filip. 1998. 4 pp.

*Harvesting and Marketing Noble Fir Boughs from Christmas Tree Plantations*, EC 1500. Chal Landgren. 1998. 4 pp.

OSU Extension publications are available from:

Publication Orders, Extension & Station Communications, Oregon State University, 422 Kerr Administration, Corvallis, OR 97331-2119. Fax 541-737-0817. E-mail: puborders@orst.edu

## **Internet**

Oregon Department of Forestry log price information

<http://www.odf.state.or.us/tmbrmgt/logppage.htm>

Click on the year and calendar quarter for which you want data and scroll down to your region.

Association of Consulting Foresters, Inc.

<http://www.acf-foresters.com>

Click on "Find a Forester" to get contact information for all ACF members in a given state or nationally.

## **Organizations**

Local sawmills: Call the mill(s) in your area and ask to speak to their log buyers about log prices. If you don't know the names of local sawmills, ask a service forester in your local office of the Oregon Department of Forestry, or ask the forestry agent in your county's OSU Extension office.

