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Selling Timber and Logs

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timber sale is the culmination of many years of forest management. For many woodland owners, it is the most significant opportunity for return on their forestry investments. It also may be a significant departure from their normal sphere of operations. Owners may be accustomed to planting, managing weeds, thinning and pruning, and keeping their roads in good condition, but marketing timber may be something they do infrequently. This lack of experience can make it seem a daunting task.

This publication provides a step-by-step overview of selling timber, along with references to other sources of information. The steps are derived from the experiences of landowners, consultants, loggers, and log buyers and are presented in the order they should be taken to ensure a successful



Figure 1.—The vast majority of timber harvests on private woodlands are log sales.

Steve Bowers, Extension forester, Lane County; and John Punches, Extension forester, Douglas County; both of Oregon State University. This publication replaces EC 1384, "Selling Timber and Logs: Seven Steps to Success," and EC 1487, "How to Manage Your Own Timber Sale: Guidelines for Success."

timber harvest. We hope this information will give sellers a degree of comfort with timber marketing, help them feel they have adequate control over the process, increase their confidence with loggers and buyers, make better informed decisions, and gain greater returns on their tree-growing investment.

The timber-selling process

A successful timber sale demands lots of preparation. You need to invest the time, well in advance, to research markets, ensure proper access to the harvest area, interview logging operators, seek buyers, promote your products, and develop viable contracts. Once harvesting has begun, you need to know how to track logging and sale activities. When harvest is complete, you need to know how to ensure all contract specifications have been met and how you will manage the taxes.

Maximizing potential revenue from a timber sale, and ensuring the process meets other landowner objectives, requires a systematic strategy. Approach the sale as a sequence of activities (done individually or with a consultant) to ensure all necessary steps are covered effectively and with sufficient lead time.

Step 1. Clarify goals and objectives

The first step in any timber sale is to formally evaluate your goals and objectives as a woodland owner. By ranking goals, you can determine what is most important to you; however, recognize that meeting some goals may involve trade-offs. For example, some of the woodland's aesthetic qualities, which initially attracted you, probably will need to be sacrificed to meet your revenue goals.

After you evaluate your goals, you can begin to define the specific actions (objectives) that lead to each goal. The best way to do this is through a written forest management plan. If you do not have a written plan, EC 1125, Management Planning for Woodland Owners, can help, as can participating in one of the management-planning workshops offered by Extension foresters.

Step 2. Understand the market

It is a poor practice to rush into a timber sale without knowing the timber's value and without taking steps to protect the woodland's potential for long-term growth. Sometimes, circumstances may lead to an unexpected and hurried timber harvest, but usually you will have some time to investigate the market's general strengths or weaknesses. If possible, several months before the anticipated sale, begin collecting information on log buyers' requirements and prices to learn what species are in demand and who are the strong buyers. Record this information and continue the market analysis weekly even after harvest begins.

General market conditions and trends

Whether you have experience in timber marketing or no background whatsoever, you cannot gather too much information. Research can range from expensive marketing publications to educational materials and informal personal contacts. Sources of information on markets and logistics of the upcoming operation include the following.

Extension foresters Oregon State University Extension foresters provide a wide range of educational assistance to forest landowners. Extension foresters often are knowledgeable about log prices and trends or know where to find this information.

Two Extension-related sources on the Internet are the *Oregon Forest Industry* Directory, at http://www.orforestdirectory. com/, and the Log Buyer's Directory at http://extension.oregonstate.edu/lane/ forestry/resources

ODF Stewardship foresters The Oregon Department of Forestry (ODF) tracks regional log prices and trends quarterly and posts the information online at http://egov. oregon.gov/ODF/STATE_FORESTS/ TIMBER_SALES/logpage.shtml While

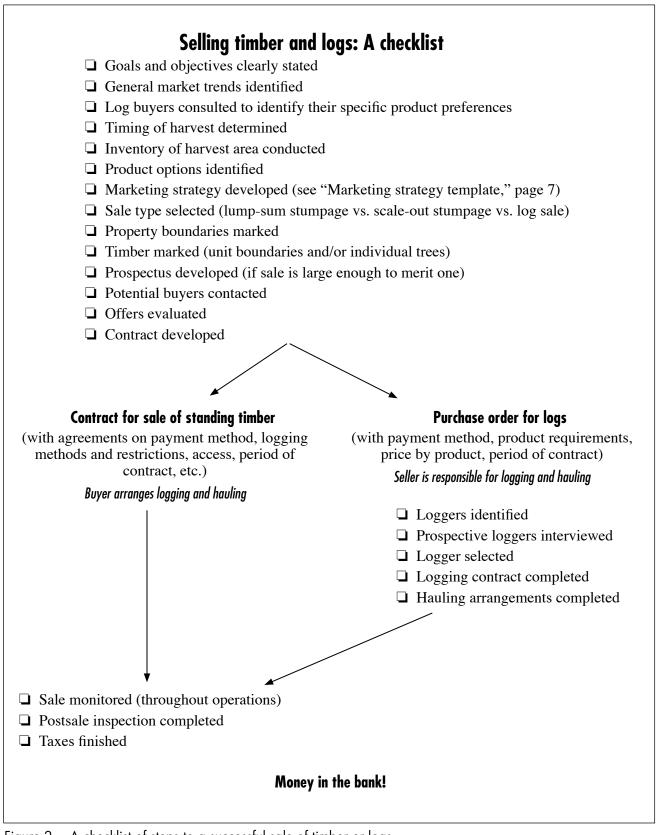


Figure 2.—A checklist of steps to a successful sale of timber or logs.

this information is not updated often, it does serve as a very useful tool for observing trends.

Log buyers Log buyers are the most direct sources of current information about prices, and they can best articulate the requirements of their respective mills. They may be interested only in delivered logs or may be willing to buy standing trees (stumpage) and to arrange logging. While a given buyer seeks a limited range of species, diameters, lengths, and quality levels for his or her mill, the buyer still might help you identify markets for timber types that do not fit the mill's requirements.

Consulting foresters Consulting foresters vary in their areas of specialty; some are highly skilled in timber marketing. Their market knowledge, connections, and experience in planning and managing timber sales can be well worth the fee you'd pay for their services.

They can assume the burden of marketing logistics and arrangements, possibly save you money by getting the most effective logger, and likely procure higher prices with their knowledge of mill requirements. Consulting foresters keep abreast of rapid changes in prices and mill specifications and maintain their selling skills and an active network of personal contacts.

Lists of consultants serving your area may be available from your local Extension office. The Association of Consulting Foresters of America (ACFA) publishes a list of its members and describes consulting forester services. It is available from ACFA, 5410 Grosvenor Lane, Suite 205, Bethesda. MD 20814-2194. Their toll-free referral number is 1-800-783-1629.

Friends and neighbors Friends and neighbors often are eager to give marketing advice gleaned from personal experience. They can help you get a feel for the way different ownership sizes, logging conditions, timber types, and other factors shape marketing strategies and experiences. Neighbors and friends also may have information on potential markets and pricing, and generally they are happy to share information and advice they found useful. However, be cautious about information from other landowners. Their experience may be limited to one or a few sales—and



Figure 3.—A key to effective marketing is knowing what potential products you have in your forestland.

their information may not be current. It is also very important to remember that each timber stand is unique, making it difficult to compare any type of logging cost or log value from one site to another.

Loggers Loggers can be a valuable source of information about potential markets, costs, and revenues. However, remember that loggers' experiences are an indication of market activity, not necessarily of market strength. Loggers also may face some conflict of interest in discussing markets, since what makes the most money for them might not make the most for the timber seller.

Price reporting services These publications may be too expensive for small ownerships, but several landowners may want to share the cost and benefit. A price report will not reduce the need to phone local buyers for current information. Most of these services collect data on sales made weeks or

Be sure you know **Oregon's Forest Practice Rules**

Oregon's Forest Practice Rules include specific requirements for livetree retention, downed wood, slash management, riparian area protection, reforestation, advance notification to the Oregon Department of Forestry (ODF), and much more. Woodland owners need to be familiar with these requirements well before the harvest starts. Refer to EC 1194, Oregon's Forest Practice Rules, for an overview, or visit the ODF website at http://egov.oregon.gov/ODF/ PRIVATE_FORESTS/docs/fp/ FPArulebk.pdf for a complete copy of the rules.

If you're new to these requirements, contact your ODF Stewardship forester for help when planning your sale.

months previously, but those still are a good indicator of trends. Three such services are:

- Loglines, Arbor Pacific Forestry Services, PO Box 1234, Mt. Vernon, WA 98273; tel. 206-336-2836
- Pacific Rim Wood Market Report, Jay Gruenfeld Associates, Inc., PO Box 66836, Seattle, WA 98166; tel. 206-242-3551
- Northwest Timber Review, PO Box 5785, Bend, OR 97708; tel. 503-389-2307

Market conditions for selected species and qualities

Knowing general market conditions is an important component of marketing, but success lies in specifics.

A strong (or weak) timber market in general does not necessarily correlate with the strength of markets for specific species, products, specifications, or quality levels. For example, sawlogs may be in demand while the chip market is depressed; conifer values may weaken while hardwoods add value; export values may be strong while domestic values slump; or poles and pilings may be in high demand while demand for sawlogs declines. These disparities between general and specific market conditions can

complicate marketing activities, but they also provide tremendous opportunity for woodland owners willing to invest the time and resources to know what they have, what products they could produce, and which products different market segments are willing to purchase.

Market timing

When to harvest timber is an agonizing question. There are no magic answers. Important factors to consider include:

- Current price levels and the direction of their expected movement
- Your trees' growth rates and their current and expected future value
- Whether you can turn to an alternative source for the income you need
- When you need the income (i.e., can you wait to harvest until the market is strong?)

The age-old axiom "buy low, sell high" is easier said than done. The mechanics of supply and demand mean you want to make your logs and timber available when other sellers cannot access their woodlands and when buyers are actively seeking those products.

Some in the forest industry state there are no patterns to log prices and trends. Others, including the authors, contend that the wet season (particularly in early to mid-spring) usually is the best time to sell logs and timber. This may not always be the case; there have been times when log prices were lower in spring than in late summer. In general, though, landowners who make the investment in year-round access may be able to capitalize on stronger markets associated with the wet season.

Step 3. Know what vou have

A key to effective marketing is knowing what you have. Most small woodland owners sell only domestic logs—and too often miss opportunities to sell potentially higher value poles or export logs simply because they did not realize they had trees that could be made into those products.



Figure 4.—In a stumpage (standing timber) sale, payment can be either in a lump sum or on a scale-out basis.

Similarly, they may lose value in the logmaking process by not fully understanding mills' preferences for length, diameter, and quality.

EC 1127, Measuring Timber Products Harvested from Your Woodland, describes major timber products and can be a good starting point for prospective sellers. More detailed information can be gleaned from log grading rules (see page 13) and by directly contacting log buyers to discuss mill preferences.

Time spent developing your understanding of mill preferences is time well spent, provided you apply that knowledge on the ground, in the form of a timber inventory. EC 1190, Stand Volume and Growth: Getting the Numbers, offers a reasonably simple way to estimate timber volume. Detailed inventories, segmented by product type and quality level, typically require professional foresters, because it takes years of practice and ongoing interaction with mills to ensure accuracy. Small woodland owners who lack specific market expertise and inventory skills generally are well advised to hire a consulting forester who specializes in these aspects.

Step 4. Develop a marketing strategy

Once you have developed a working knowledge of market conditions and trends, and you have identified potential products for your timber, it's time to develop a marketing strategy. The goal of your marketing strategy is to extract the highest value feasible for a specific combination of products, within your allowable time frame. The strategy should identify:

- What you would like to sell (what mix of products)
- When you would like to sell it
- Who the potential buyers are
- How the products will be offered (i.e., in a log sale or a stumpage sale)

If you want the individual stand information needed to capitalize on market trends, generally you need a written management plan. Having a written plan doesn't ensure success, but it may be difficult to recognize success without one. A plan enables you to collect your thoughts, develop more useful information, and improve your decision making. It focuses energy on expanding the range of options or on the biggest payoffs. A plan also may help you develop a better bargaining position, because it requires you to identify possible buyers and the opportunities they present.

A key element of any timber marketing strategy must be the sale type itself. The two basic ways to market timber are either as stumpage (standing timber) or as logs or other products. The most common sale type is as logs, whether produced by the woodland owner or by a logging contractor.

Each type of sale has pros and cons. Your choice significantly affects the extent to which you need to structure and manage the selling and harvesting processes.

Stumpage sales

The buyer of standing timber anticipates being able to convert it into logs or other higher value products. Payment for stumpage can be in a lump sum (in which case, the standing timber shifts to new ownership) or on a scale-out basis (the buyer agrees to purchase the timber as it is harvested). Both sale types are commonly performed within 1 year.

Scale-out sales

Scale-out sales have some downsides that lead us to warn against using them and few woodland owners do. Sale terms offered for the timber may seem relatively high, but the buyer, if allowed, will be tempted to remove only the better timber from the site, leaving the lower quality material behind (without paying for it). Foresters refer to this as "high-grading" or "creaming," and it can leave a forest in poor condition.

If you do consider a scale-out sale, be aware that it requires more complex contract language, and a higher level of sale monitoring, than a lump-sum sale.

Lump-sum sales

The lump-sum stumpage sale is the most common stumpage sale choice of small woodland owners.

A lump-sum sale sets a fixed price for all timber in the designated sale area. Whether the buyer removes a single tree or every tree in the designated area, the total price is the same. This sale type is attractive to some sellers because it shifts much of the



Figure 5.—Poor roads can limit your ability to take advantage of market opportunities.

Marketing strategy template

What potential products do you have?

How much of each product do you have?

When will your products be offered (timing)?

How will the products be offered (stumpage or log

What's the current market value of each potential product?

What is the specific mix of products to be offered?

Who are the potential buyers?

marketing and harvesting burden to the buyer, and it encourages complete utilization of the offered timber.

Further discussion of stumpage sales will be restricted to the lump-sum type.

Advantages to the seller of a lump-sum stumpage sale include:

- The seller immediately receives a fixed price for all timber, regardless of when it is harvested.
 - Less marketing skill and administration are required on the seller's part.
 - In a strong market, buyers may increase their bids in anticipation of future price escalations.
 - The buyer is encouraged to remove all merchantable material from the sale area.
 - The seller avoids the cost and bother of tracking logs to destination mills.

- The buyer must file the Notification of Operations with ODF and is responsible for severance and harvest taxes.
- Stumpage sales result in capital gains income—which usually is taxed at a lower rate than ordinary income and is not subject to self-employment taxes.

Disadvantages of a lump-sum stumpage sale include:

- Buyers typically deduct 10 to 15 percent of the timber's estimated value from their offer to provide for their profit margin and a risk factor.
- During poor markets, buyers may lack interest due to lack of demand for finished products.
- During a weak market, buyers may lower their bids in anticipation of future price drops (i.e., the opposite of the bidding strategy in a strong market).
- The logger's allegiance is to the buyer, who hires the logging operator (a disadvantage in any stumpage sale).
- Time and expense of an accurate timber cruise are required to ensure the offered price is adequate (a disadvantage in any stumpage sale).

Log sales

The vast majority of timber harvests on private woodlands are log sales. From the

seller's standpoint, advantages of a log sale include:

- The seller has the flexibility to switch buyers (sellers are not locked in with one buyer).
- Strong markets encourage buyers to speculate in prices (buyer's pricing strategies are similar to those in stumpage sales).
- The logger's allegiance is to the seller, who hires the logger; thus the logger is more likely to support the seller's objectives of maximizing value and meeting contract requirements.

- The seller can merchandise to maximize the timber's value, based on matching timber type to buyer's specifications.
- The seller can merchandise in smaller volumes.

Disadvantages of a log sale include:

- The seller must monitor the logger to ensure that contract requirements are met.
- The seller must monitor the market, because market conditions could change.
- The seller needs merchandising skills and experience, to maximize return.
- Weak markets encourage buyers to adjust price downward.
- The seller needs to arrange for logging.
- The sale is more complex to prepare, and the burden of record keeping is higher.

One further possible disadvantage of a log sale is that it generates either ordinary income—which usually is taxed at a higher rate than capital gain income—or a combination of ordinary and capital gain income, depending on how the sale is structured and how the income is reported to the Internal Revenue Service.

The seller also is responsible for paying self-employment taxes, which can be costly, as well as the Oregon Forest Products Harvest Tax and potentially a severance tax, depending on the seller's property tax program.



Figure 6.—Within a harvest area to be clearcut, mark the leave trees (for wildlife, if applicable, and for Oregon Forest Practice law requirements) to show loggers which trees must *not* be harvested.

For details, refer to EC 1151, Taxes and Assessments on Oregon Forestland and Timber, and EC 1526, Federal Income Taxation for Woodland Owners—and be sure to work with a tax adviser who is experienced in forestry tax issues.

Step 5. Lay out the sale area

Determine property and timber sale boundaries

Prior to any harvesting activities, determine property lines and timber sale boundaries. Clearly marked property lines are critical for successful relations with adjoining landowners, avoiding questions of tree ownership. Be very cautious if harvest boundaries border property lines that are delineated by fences or roadways. Often, these structures do not accurately reflect legal boundaries and may result in a timber trespass. If property lines have not been identified, a state-licensed surveyor is required for the work. Consulting foresters can assist in many aspects of a timber sale, but only a licensed surveyor can identify legal boundaries.

In many cases, timber sale and property boundaries may be identical. One of the most common ways to mark a timber sale boundary is tying colored ribbon along tree branches or brush. Another way is to spray tree paint on the stems of trees along the border of the unit. However, tree paint will remain visible on leave trees for many years after the harvest. If aesthetics are important, removable ribbons may be preferable.

In determining where to place timber sale boundaries, consider topography, insect and disease areas, special management areas, and the productivity of the sites to be harvested. It is often possible to follow a contour line when placing the boundaries, imitating a clearing and improving the aesthetic effects of the harvest. Whatever the prescription, a written management plan should outline the desired goals and objectives of the harvest.

Log Buyer's Directory a good marketing tool

When planning a log sale, you can use OSU Extension's online Log Buyer's Directory (at http://extension. oregonstate.edu/lane/forestry/resources) to identify all prospective buyers.

The directory includes primary log manufacturers (lumber, veneer, and fiber operations), log-home manufacturers, and sort yards. The directory includes individuals and companies from all of Oregon as well as southwest Washington, western Idaho, and northern California. Listings are sorted by county and state.

Information for each company includes name, address, log buyer(s), and contact number(s). Also listed are desired species, minimum and maximum log lengths and diameters, preferred lengths and diameters, and how logs are measured (weight or scaling entity).

Ensure proper access

Oregon law gives landowners the right to cross another's property, if no alternative is available, to access their own properties. However, adjacent landowners might still attempt to deny access, possibly resulting in a long, contentious court battle. All access issues should be spelled out and resolved in written contracts with other landowners before beginning any harvest operations. EC 1192, Contracts for Woodland Owners and Christmas Tree Growers, contains information about easements and has samples of contracts dealing with road access.

Be sure that your own road system does not limit your ability to take advantage of market opportunities. Lack of wet-season access limits opportunities to cash in on the higher prices often available at that time of year. Even during the dry season, poorly designed or maintained roads may severely limit equipment access and effectively prevent products from coming to market. Any marketing strategy needs to include an assessment of access and needs to weigh the costs of improving roads against the benefits. An excellent tool for determining a road's suitability for logging activity is Managing Your Woodland Roads: A Field Handbook (see back page).



Figure 7.—Consider visiting the log yard of a mill that is on your list of prospective buyers. A visit is a good way to obtain insights and additional information regarding preferred lengths, diameters, and other characteristics of the logs the mill buys.

Mark the timber

With a marketing strategy in place, it's time to select the trees to be harvested. Clearly identifying the trees that will be sold serves at least four important functions:

- Allows you to develop an accurate description of what will be sold
- Allows you to visualize the sale's impact on broader woodland management objectives
- Ensures that buyers understand what is being offered
- Shows loggers what they should cut

Areas to be clearcut need not have every tree marked; it is usually sufficient to mark only the boundaries of the unit. Within the clearcut, mark the leave trees (for wildlife, if applicable, and for Oregon Forest Practice law requirements) to show loggers which trees must *not* be harvested.

In a partial cut, you must determine which trees are to be cut, and you must communicate this clearly to the logger and timber buyer. The best way is to spray paint on the stem of the tree, both below stump height and at eye level. The mark below stump height allows for postfelling monitoring, and a mark at eye level makes it easy for the logger to identify the trees. Marking removes doubt for the buyer and the logger about what trees are to be sold and gives a

more accurate representation of the stand when negotiating logging costs and determining log values.

Step 6. **Promote** your product

Develop a prospectus

A prospectus is a written description, in the form of a letter to prospective buyers, of what you have for sale and the basic conditions under which you will sell

the product(s). The prospectus incorporates information from a timber cruise and the sale logistics. Using a prospectus to communicate your sale to possible buyers can help you think through and control the marketing process. A prospectus is very strongly recommended for all types of stumpage sales and possibly for a large log sale, i.e., greater than 30 truck loads, or approximately 100,000 board feet (100 MBF).

Advantages of a prospectus include:

- Forces you to think, as you prepare the prospectus, about options and objectives
- Notifies all buyers at the same time with the same information about the sale
- Minimizes guesswork and can serve as a basis for dialog with buyers

Disadvantages of a prospectus include:

• Requires time and money to collect the necessary information; and in some locations or during poor timber markets, you may not get a full return on that investment if you get little or no response to the prospectus. (Poor response may be a signal to delay the sale until conditions are better.)

A typical offer by prospectus briefly describes the cruise information, type of harvest, logging, scaling, and payment procedures. Your objective is to be specific Logs with similar characteristics (species, diameter, knot size, etc.) will constitute most of the volume—and likely most of the total value—of the sale. Focus on attracting offers that allow you to get maximum value from those log types.

enough to interest buyers but not so detailed as to scare buyers away with complexity or extreme or excessive demands.

Two essential elements of any prospectus are, first, a disclaimer that timber volumes are only estimates and, second, a statement of the right to refuse any and all offers. Also include a map and detailed directions to the sale area.

Identify the product being sold

You have no control over the general economy and factors such as inflation, business cycles, interest rates, and housing starts, but you can control what you want to sell and where to sell it.

Today, a given log mill usually is tooled only for the log sizes and species needed to manufacture specific wood products. Accordingly, the mill buys a more restricted range of diameters and species than perhaps it did in the past. Look for mills whose log requirements match the characteristics of your logs.

Understanding buyers' needs is the basis of all marketing. Changes in demand or supply can firm up or soften mills' requirements and prices. You need to understand what log characteristics may influence each buyer's prices—which can be confusing even for experienced merchandisers.

Basically, all mills want green, straight logs, bucked square on the ends, limbs cut flush to the bole, and without any foreign material (nails, bullets, etc.) embedded in the bark or wood. All logs require trim, usually 8 to 12 inches per log segment, depending on length. For more information, study Official Rules: Log Scaling and Grading Bureaus (see back page).

You need to describe the types of timber you will sell—the species and their exterior characteristics, especially knot size and overall straightness—and the estimated volume of each type. Also state maximum and minimum log diameters and average quality of the logs.

Be an informed seller

It's very important to present yourself to buyers as an informed seller. Log buyers are less inclined to offer top dollar to sellers who seem to be inexperienced in marketing and unsure of the products they are attempting to sell. If you are unsure of your ability to effectively market your timber, we highly recommend you consider hiring a consulting forester who is experienced in timber merchandising.

Inexperience in marketing timber and unfamiliarity with the indicators of log quality present two potential problems. First, if you underestimate the quality of your product, you may not receive full market value for it. Second, it is human nature for you, the seller, to value your product more highly than a buyer may value it. If you are not well informed and believe the buyer is attempting to take advantage of you, it will be difficult for the buyer to complete a transaction that satisfies you, regardless of the offer. Not only will this sour the current negotiations, it may lead to mistrust and misunderstanding in future endeavors, further eroding relations between buyer and seller.

Contact potential buyers

Contact as many prospective buyers as possible. Generally, the higher the quality of your product, the larger the area in which you should seek potential buyers. For example, the best markets for wormfree redcedar, large-diameter hardwoods, or high-quality Douglas-fir may be well over 100 miles from your property. Conversely, the optimum buyer for average-quality whitewoods and Douglas-fir likely will be found among mills near the harvest site.

This may not be the only time you want to sell timber, so it is important to develop a positive reputation and to retain future

options. Remember that log buyers are a very close-knit group. Many of them are personal friends outside the workplace. Any information about you and your products, good or bad, will likely be shared by all buyers. You have only one chance for a first impression, and it is in your best interest to be as honest and open with information as possible. Provide all buyers with the same information at the same time.

Log buyers typically use one of three approaches in giving price quotes.

- If contacted by phone, the buyer may refuse to make any offer until he or she inspects the logs.
- The buyer may make a firm offer by phone, and it will be the same amount whether or not the buyer visits the site.
- The buyer may make an offer by phone and also visit the property. It is quite possible the offer made at the site will be higher than the phone quote.

Keep these different approaches in mind when evaluating offers. If even a few dollars per MBF separate two or more buyers, and the quotes were obtained via different modes of communication, it is imperative that potential buyers visit your site.

The more communication you have with buyers before they quote prices, the more likely offers will be similar whether made by phone or site visit. That's because buyers have a better idea of your knowledge and ability to accurately describe a log's quality and exterior characteristics. Consider visiting the log yard of a mill on your list of prospects; it's a good way to obtain insights and additional information regarding preferred lengths, diameters, and other log characteristics. OSU Extension's Log Buyers Directory contains most of this information, but occasionally a mill will have an order that requires log dimensions other than those in the directory.

As you consider prospective buyers, remember two important points. First, a strong buyer in the past does not guarantee a competitive offer from that buyer at this time. Too many sellers blindly accept offers from previous buyers because they were treated fairly in previous transactions. Second, a mill's log specifications may change over time; for example, a change in markets for manufactured logs may lead to a change in raw-log specifications.

Logs with similar characteristics (species, diameter, knot size, etc.) will constitute most of the volume—and likely most of the total value—of the sale. Focus on attracting offers that allow you to maximize value from those log types. Log buyers are experienced, savvy negotiators and may offer more money for one of your species or log types in order to get a good deal on other of your logs, which better meet the mill's needs.

Multiple buyers

If you are merchandising more than one species, or merchandising logs of the same species that vary widely in quality, quite possibly you will need to market to multiple buyers to maximize revenue. If so, you will sort logs by type (species, grade, or size). Then, it is essential to notify all potential buyers of your sorting to ensure you are getting offers that correspond to logs the mills expect to receive. It is possible that sorting and selling to multiple buyers will generate less revenue than selling all logs to one buyer, because of the additional logging and hauling costs, larger landings needed, and the possible cost of correcting misshipment of the wrong logs to a given mill.

Selling to a sort yard, if one is available in the vicinity, can be an alternative to merchandising to multiple buyers.

Sort yards

One advantage of marketing to a sort yard is its willingness to accept any quantity of species and/or log quality. Woodland owners selling a small volume of logs from a diverse timber stand may have several different species and many log qualities. This makes it difficult to sell to mills with specific log requirements because volumes may be inadequate (less than one truck load, about 3 to 4 MBF) to justify hauling costs. Typically, the sort yard charges a small fee for its willingness to accept many different species and log qualities. When the sort yard accumulates enough volume of a particular log type, the yard sells to the highest bidder, using the same strategy as a woodland owner who sells to a mill.

Because the sort yard sells to basically the same mills as woodland owners do, the sort yard's log specifications also may change over time.

Step 7. Evaluate offers

A landowner in need of cash can be tempted to accept the first offer from a timber buyer. This rarely results in the best deal for the landowner! Likewise, when a landowner receives multiple offers, it may seem appropriate to accept the highest bid—but a high price doesn't automatically result in high profit. When evaluating offers, consider all the following factors.

- Price being offered
- Special requirements of the bidder (i.e., product specifications that may be difficult or costly for the seller to achieve)
- Distance to mill (which affects hauling
- Units of measure (comparing offers that are based on differing units of measure can be confusing and difficult to reconcile; see the following discussion of pricing structures)

Log buyers structure their offers in a variety of ways; we will address the more common pricing structures.



Figure 8.— In buyers' pricing structures, diameter breaks occur in various increments depending on species and mill type.

Pricing structures

The simplest is a **camp run.** A camp run offer is a single price per species for all merchantable material. Cull logs are not included in the camp-run offer but in a separate bid offer, either at the camp run price or by individual cull grades. Many woodland owners prefer a camp run offer because it removes much of the decision making about bucking patterns (see "Price breaks by log length and diameter," below), but they sacrifice potential value to be gained from optimized bucking and merchandising.

In the past, nearly all conifer logs were sold on a grade basis, but since these high-quality logs are relatively rare today, purchase orders based on log grade are not as prevalent. However, if you are marketing large-diameter, high-quality logs, a purchase order by grade may be a viable option.

If you plan to market your logs by grade, it is imperative that you understand log grade rules. You can buy a copy of the Official Rules: Log Scaling and Grading Bureaus at the nearest grading bureau office (see back page). Bigger does not necessarily correlate to better in today's log markets. For example, if a log meets the diameter requirements of a particular grade but fails to satisfy the surface characteristics requirement (knot size), its value will be docked substantially.

Price breaks by log length and diameter

Aside from camp run, the vast majority of log purchases of any species are based on length and diameter breaks or a combination of both. Price breaks by length vary primarily by mill type. For example, veneer facilities consider 34-foot logs a premium length. Dimensional-lumber mills consider 32 feet and longer as premium lengths, often paying more for each 2-foot increment from 32 feet up to a maximum of 40 feet. The most commonly accepted short log in a dimensional mill is 16 feet; in a veneer facility, it's 17 feet.

Diameter breaks occur in various increments depending on species and mill type. Diameter breaks in conifer logs often correlate to diameter breaks by log grade

(i.e., 5-inch, 6- to 11-inch, and 12-inch and larger). Conifer logs greater than 12 inches in diameter may be priced equally or may increase in value as diameter increases, depending on species and log quality. For both conifer and hardwood, the minimum merchantable-quality log has a 5-inch scaling (small-end) diameter. Hardwoods are sold at 1- or 2-inch increments in diameter from 5 inches up to 12 inches. Normally, a bidder offers one price for all hardwoods 12 inches and greater in diameter.

Weight basis

Hardwoods and conifers also can be sold on a weight basis (dollars per ton), and you may be given the option of selling by weight or scale. For conifers, selling by weight is often a viable option if scaling diameter is less than 8 inches. The benefits of selling hardwoods by weight are not as clear; generally, as diameters increase, selling by weight becomes less attractive.

A series of spreadsheets, the *Scribner* Volume & Value Tables can help you compare offers. The spreadsheets are available on CD from the authors*, in Microsoft Excel format. They allow you to insert values (\$/MBF) as shown on a purchase order. The spreadsheet then converts Scribner volumes by length and diameter to value for each category specified in the purchase order. This makes it much easier to recognize the offer (or combination of offers) most likely to maximize the value of your timber sale.

Offers that use different methods of measurement are complicated to analyze. The vast majority of sawlogs are sold on an MBF basis, but small-diameter sawlogs (chip and saw) and chips are sold by weight. EC 1127, Measuring Timber Products Harvested from Your Woodland, can help you calculate a conversion factor for the unique log characteristics of your timber sale, but this will be an approximation at best. The diversity of log lengths, diameters, and taper complicate conversion, and no definitive conversions formulas are available for this type of analysis. Rather

than risk basing a decision on faulty conversions, it may be better to ask bidders to restate their offers using a common measurement system.

Other factors

Intangible factors may also enter into evaluation of prospective buyers. Some factors may be strong enough to warrant selecting a buyer who offers a lower price but provides important services or benefits, such as:

- Maintaining a long-term relationship and prospects for future sales
- Willingness to take small volumes
- Willingness to accept logs that do not meet standard characteristics
- Arrangements for other services such as logging, slash disposal, and road maintenance
- Reputation and record of performance

Step 8. Contract with a buyer

Having successfully navigated the marketing process, it's time for "the rubber to meet the road"—that is, time to draw up a timber sale contract with the successful bidder, defining the expectations and commitments of both parties. The complexity of the contract depends on the type of timber sale and method of payment. EC 1192, Contracts for Woodland Owners and Christmas *Tree Growers.* discusses contract elements and includes a simple timber sale contract template.

Stumpage sales

As discussed earlier, stumpage sales convey standing timber from seller to buyer, and the buyer has the burden of harvesting and disposing of the logs. Contracts for lump-sum stumpage sales may be relatively simple, since a detailed description of the product being sold is not required. A scaleout stumpage sale requires more specifics, particularly if prices will vary by species and grade.

^{*}OSU Extension offices: Lane County, 950 W. 13th Ave., Eugene, OR 97402, tel. 541-682-4243; Douglas County, 1134 SE Douglas Ave., Roseburg, OR 97470, tel. 541-672-4461.



Figure 9.—The "right" logger is not always the one with the lowest bid. Choose the contractor you believe will best meet your overall objectives for log production, resource protection, and responsible business practices.

In either type of stumpage sale, be sure to carefully describe harvesting expectations in the contract.

Logging has obvious implications for health of remaining trees, wildlife habitat, soil disturbance, slash disposal, road maintenance, aesthetics, and a host of other considerations important to you—but not necessarily to the buyer. Since the buyer will be responsible for hiring and managing the logger, the sale contract likely will be your only opportunity to negotiate how and when logging will occur.

Stumpage sale contracts should include, at a minimum, these basic provisions:

- Identify the buyer and seller
- · Identify harvest area
- Describe what's being sold
- State the price and any price breakdowns for specific categories
- Describe how and when payment will be
- Describe insurance requirements
- Describe beginning and ending dates of harvest activities
- State the seller's right to refuse or terminate any and all offers

Log sales

A contract for the sale of logs to a mill or sort yard commonly is called a purchase order or a log purchase agreement.

Compared to a stumpage sale contract, the log purchase agreement has little or no information about logging (as this remains the seller's responsibility) but has much more detail on product prices and the stipulations that entitle the seller to receive the listed prices. In some cases, the log buyer may offer the names of potential loggers and possibly help organize the harvest operation, but the log purchase agreement and the logging contract will be two separate documents. The log buyer controls the articles of the log purchase agreement; the seller controls the articles of the logging contract. In all log purchase agreements include:

- ODF Notification of Operations number
- Approximate volume to be delivered (not a guaranteed volume)
- Identify the buyer and seller
- List of desired species and price structures
- List of required log specifications (lengths and diameters) that will ensure payment (this is a list of what the buyer wants, not a list of what the seller has to offer; it is the seller's responsibility to meet the buyer's requirements)
- Method of payment (most agreements pay on 2-week intervals)
- Buyer's statement that any logs not meeting listed specifications may be refused
- Statement that agreement may be terminated without further notice

Step 9. Select the right logger

The seller of stumpage has little influence over logger selection, as this falls to the new owner of the timber. But if you are selling logs, hiring and managing a logger and selecting the appropriate logging system is one of the most important steps in the timber sale process.

EC 1582, Timber Harvesting Options for Woodland Owners, can help identify the method of logging most appropriate for a specific area.



Figure 10.— If the operation is in western Oregon, remember that log branding is required before hauling begins.

OSU Extension Service county offices and Oregon Department of Forestry (ODF) offices maintain lists of loggers. The trade association Associated Oregon Loggers (AOL), 1045 Gateway Loop, Springfield, OR 97477, tel. 503-746-4311, has a membership roster available to the public.

ODF Stewardship foresters work with loggers daily and can provide information on performance; consulting foresters are also a valuable source, as are neighbors who have hired loggers.

Site visits

Invite at least three loggers to separately tour your sale area. Explain the details of what you want to accomplish and be sure to convey the information uniformly so that each logger is operating under the same assumptions. After the site visit, ask each operator to submit a bid. Some provide a bid immediately after the site visit; others submit bids by phone or mail, working to your deadline for response. The best loggers nearly always are busy, so plan well ahead; for example, if planning a summer harvest, interview prospective loggers in winter and reserve them for the coming dry months.

During the site visit, discuss designated skid trails and landing sites with the logging operators. You may have an idea of where to locate these areas, but keep in mind that loggers know the abilities of their equipment and operators. Seriously consider their recommendations. It is entirely possible that existing roads may not be suitable for log trucks and may require improvements. Managing Woodland Roads: A Field Handbook (see back page) contains valuable information on road access, maintenance, and repair.

Method of payment

The vast majority of loggers are paid on either a percentage or a board-food (\$/MBF) basis. A \$/MBF basis gives you a concrete number to calculate expenses and is not related to market conditions. If the logger states he or she works only on a percentage basis, you still might be able to reach an agreement, but don't be intimidated into accepting an offer on terms that make you uncomfortable. Avoid the issue in the first place by recruiting a strong pool of candidates for the job.

Evaluating candidates

An old saying is "You can't afford the lowest bidder." The "right" logger is not always the one with the lowest bid. Choose the contractor you believe will best meet your overall objectives for log production, resource protection, and responsible business practices. You can perform the marketing process flawlessly only to see your entire effort undermined by a logger's failure to properly match harvesting and bucking patterns to the buyer's requirements or to deliver the logs in a timely manner. We simply cannot overemphasize the

importance of carefully and systematically selecting a logging operator

When evaluating logging contractors, consult both the contractors themselves and the landowners for whom they have worked. Some questions to ask potential operators include:

- Are you Pro Logger certified with the AOL?
- What payment terms do you prefer (percentage, \$/MBF, or hourly)?
- What parts of the operation will you do?
- What parts of the operation, if any, will you subcontract?
- What controls do you use in managing subcontractors (e.g., are subcontractors under written contract to you)?
- Do you use a standard written contract?
- Do you have proof of liability and property insurance?
- Is your equipment well matched to the conditions and requirements of the site?

Some questions to ask contractors' references include:

- Did the logger keep promises about use, cleanup, and other business agreements?
- Did the logger have a written contract and abide by its terms?
- Was the logger willing to listen to your needs and directly answer questions?
- Did the logger do the job efficiently and meet the agreed time limit?
- Did the logger buck and sort logs to get the highest return as stated by the purchase order?
- Did the logger damage many leave trees or improvements?
- If so, did the logger make appropriate repairs?
- Did the logger keep you informed about how the job was going?
- How were the logger's relations with ODF Stewardship foresters and neighboring landowners?
- Were there any violations of the contract or of Oregon Forest Practice law?

Step 10. Develop a logging contract

Proper selection of a logger includes forging a mutual understanding about what should be done during the harvest operation. This is reflected in a written, legal agreement. A contract will detail job duties, set performance standards for those duties, and define the results expected upon completion of the contract obligations. A contract should be precise enough that the operator fully understands the duties and performance standards but also should allow for modification. Allowances may need to be made if there is a change in your goals and objectives or in conditions on the ground during the operation.

If you have never witnessed the beforeand-after of a timber harvest, we strongly recommend that you visit other logging operations to understand what is entailed. Even the very best logging operation will substantially change the landscape, for good or bad. Obviously, a light thinning will have less aesthetic impact on a site than a clearcut, but there will be impacts nonetheless. Landowner's remorse cannot be brought to bear legally on the logging contractor if the contractor was operating under the conditions of the contract.

Before you enter into a logging contract, it is imperative that you understand the implications of contract provisions. EC 1192, Contracts for Woodland Owners and Christmas Tree Growers, contains information on written agreements, complete with samples of timber sale contracts.

Extremely important points to include in all timber sale contracts are:

- Starting and ending dates of harvest activities on your property. (The importance of this cannot be overemphasized.) State all dates as day, month, and year, to avoid confusion.
- Who is responsible for liability and property damage insurance, and the limits of coverage
- Very clearly defined harvest-area boundaries
- Amount, method, and timing of payments

- Circumstances for terminating the contract (e.g., describe anything that you absolutely will not tolerate)
- Easements and fee structures (these commonly are performed and paid by the landowner)

The above list is only a starting point for constructing a logging contract. Loggers often have their own contract forms, which may be acceptable if the logger allows modifications important to you. Remember, the logger is working for, and being paid by, you.

Forest-certification issues

Certification continues to be an issue when selling logs and timber. See EC 1518, Forest Certification in North America, for a description of common certification options.

Anticipate that log buyers in your region will require you to have a written management plan through one of the forestcertification programs. The American Tree Farm System (ATFS) is one such program and is recognized by log buyers throughout the region. If you do not have a written management plan, prospective buyers may require that the logger be registered with the Association of Oregon Loggers (AOL) *Pro* Logger program.

Step 11. Monitor closely -before, during, and after

Once operations are ready to begin, too many landowners stop being involved. This is a risky approach—much can go astray without your vigilance. We recommend you stay involved throughout the logging process, observing operations and frequently communicating with the logger.

Before the operation

Before operations begin, it can be a good idea to meet with the entire logging crew to discuss any special contract requirements such as riparian areas, historical sites, adjacent landowners, or restricted access to special reserve areas. These conversations accomplish two important things. First,

your special concerns alert the crew to use extra caution. Second, you convey a sense that you are going to be actively involved in the operations. Providing you don't interfere with daily tasks, and merely make your presence known, there is no harm in the operators' knowing they are being monitored. But taken too far, the crew may feel vou are too meddlesome.

During the operation

Continued monitoring of the logging operation is critical to a successful timber sale. Regardless of the clarity of a logging contract, there may be instances when the operator's interpretation is not the same as yours. It is good to be on site at the outset of operations, to answer questions and to clarify the intent of the contract. As operations progress, periodic visits are satisfactory, and you will not appear overbearing. If you and the logging operator act as partners and not adversaries, chances for a successful operation increase greatly.

As the operation continues, also give careful attention to log markets. It is quite possible the harvest operation will last beyond the initial expiration date of the log purchase agreement. Deteriorating market conditions are an incentive for you to complete the operation as soon as possible. If markets appear to be getting stronger, you may want to slow or delay the operation. Discuss any change in operations with the logging operator and modify the contract if needed.

If a purchase order expires, contact the bidders who made the best offers in your initial market inquiries. In volatile log markets, you may want to consider changing buyers. If so, proceed as professionally and courteously as possible. Buyers understand a seller's desire to get the best price possible, but the process must occur in good faith and with all relevant information shared. If another bidder offers more than the initial buyer, contact the initial buyer. It is possible he will match the higher offer.

Brands and trip tickets

If the operation is in western Oregon, remember that log branding is required before hauling begins. The logger, or the driver hauling logs, will have a registered brand. Or, apply for your own log brand through the Oregon Department of Forestry, Log Brand Division, at 503-945-7305.

It is also extremely important to get a trip ticket for each load of logs that leaves the property. For each load hauled, the trip ticket records the date, time, truck driver identification, destination, and number of logs. This information is of paramount importance for accurate load tracking and payment verification. When you receive the mill's summary of the scale tickets, you can refer to your trip tickets to ensure you are properly credited and paid for your logs.

After the operation

It is not safe to assume that a satisfactory beginning will ensure a successful conclusion. The final phase of a timber sale is the postsale inspection. Make it after timber has been logged and delivered to the mill but before the logger removes equipment from the site. Contractors generally are eager to move on to their next job, so good communication will be critical as logging nears completion.

In the postsale inspection, ensure all contract provisions have been met to your satisfaction. For example, inspect:

- Landings, to make sure merchantable logs and chip material have been removed
- Slash and debris, to ensure that they have been piled and treated per the contract's specifications
- Leave trees, to see whether they have been damaged
- Skid trails, to ensure they have been treated for erosion control
- Roads, to ensure they have been repaired

If any issues require additional work by the logger, now is the time! Once the operator has left the premises, it will be extremely difficult to get him or her to return. A common contract provision is to



Figure 11.—If the logging contract specifies postharvest treatment for slash and debris, make sure this has done this to your satisfaction before the logger removes equipment from the site.

withhold a percentage of payment until all the contract requirements have been met. This is a good idea, particularly if you lack a track record with the logging contractor.

Summary

Selling logs and timber is a complicated process that requires substantial investments of time and a thorough understanding of the timber industry. Timber sales have impacts on site productivity, wildlife habitat, the aesthetics of the property, income and taxes, estate planning—the list goes on and on. Woodland owners knowledgeable about, and comfortable with, the marketing process can be highly successful when selling timber and logs. Those lacking this level of experience should consider seeking professional assistance and can use this publication as a reference to understand what their consultants are attempting to accomplish on their behalf.

For more information

OSU Extension publications

Contracts for Woodland Owners and Christmas Tree Growers, EC 1192. Bowers, Steve.

Federal Income Taxation for Woodland Owners: An Overview, EC 1526. Elwood, Norm, Chal Landgren, and Susie Gregory.

Forest Certification in North America, EC 1518. Hansen, Eric N., Rick Fletcher, Benjamin Cashore, and Constance McDermott.

Management Planning for Woodland Owners: Why and How, EC 1125. Bondi, Michael and Chal Landgren.

Measuring Timber Products Harvested from Your Woodland, EC 1127. Oester, Paul and Steve Bowers.

Oregon's Forest Practice Rules, EC 1194. Adams, Paul.

Stand Volume and Growth: Getting the Numbers, EC 1190. Bowers, Steve, Nate Coleman, and Rick Fletcher.

Taxes and Assessments on Oregon Forestland and Timber, EC 1151. Elwood, Norm, Norm Miller, and Chal Landgren.

Timber Harvesting Options for Woodland Owners, EC 1582. Parker, Bob and Steve Bowers.

Tools for Measuring Your Forest, EC 1129. Bowers, Steve.

You can view and download many Extension publications online, at http://extension.oregonstate.edu/catalog/ Or,

order through the OSU Extension Service office that serves your county, or through Publication Orders, EESC, Oregon State University, 422 Kerr Administration, Corvallis, OR 97331-2119, tel. 1-800-561-6719; email puborders@oregonstate.edu

Other publications

Managing Your Woodland Roads: A Field Handbook. Bowers, Steve. Oregon Forest Resources Institute (also available from OSU Extension offices)

You can buy a copy of *Official Rules:* Log Scaling and Grading Bureaus from any of the following:

Columbia River Log Scaling & Grading Bureau, PO Box 7002, Eugene, OR 97401; tel. 541-342-6007; fax 541-342-2631; services@crls.com

Northern California Log Scaling & Grading Bureau, PO Box 1088, Arcata, CA 95518; tel. 707-822-3614; fax 707-822-1046; nclsgb@reninet.com

Pacific Rim Log Scaling Bureau, Inc., PO Box 11343, Tacoma, WA 98411; tel. 253-383-1501; fax 253-383-4268; admin@psls.com

Southern Oregon Log Scaling & Grading Bureau, PO Box 580, Roseburg, OR 97470; tel. 541-673-5571; fax 541-672-6381; solog@rosenet.net

Yamhill Log Scaling & Grading Bureau, 1833 Ash St., PO Box 709, Forest Grove, OR 97116; tel. 503-359-4474; fax 503-359-4476; yamhill@attglobal.net

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The Woodland Workbook comprises some 60 publications prepared by Oregon State University Extension foresters specifically for owners and managers of private, nonindustrial woodlands. Workbook publications contain information of both long-range and day-to-day value for anyone interested in wise management, conservation, and use of woodland properties. Publications are available for purchase separately. For information about how to order, and for a current list of titles and prices, contact the OSU Extension Service office that serves your county. Or, visit the Extension publications and multimedia catalog online at http://extension.oregonstate.edu/catalog/

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