Scaling is the process of measuring the usable volume of wood within a log. Bring up the topic of log scaling among a group of forest owners and you can almost guarantee an animated discussion of “which mills are scaling low” and “which mills are scaling good”. When mills are asked about the topic, they say there are no significant differences between scale at the mills.

Whatever the real or perceived differences in scale might be between mills, in monetary returns that difference is small when compared to other factors that can influence timber sale profitability. The real question you should ask is not so much “Where do I get the best scale?”, but “How do I get the most return from my timber harvest?”. Here are some key factors to consider:

**Log Market Research.** Have you checked prices at different mills? Increasingly, different mills are specializing in varied species and sizes of logs. Many times mills are willing to pay a little more for logs that meet their unique specifications — or less for logs that do not meet their specs (e.g. some northwest mills are now paying less for logs that are too large!) Look beyond the standard 16.5 and 33-foot log lengths. Depending on the products they make, some mills may want other lengths. You should also check for mills’ specific defect deductions. For example, many mills make a price deduction for logs with blue-stain fungi (a fungus that discolors the wood but has no impact on it structurally). Mills that manufacture studs and dimension lumber often do not deduct for sweep and crook.

If you are selling logs “camp-run” to one mill, the odds are quite good that the mill is sorting out specific logs to be sold to another mill that offers a premium for those types of logs. You can often make more money on the sale by sorting your logs and transporting different types of logs to the specific mills that are paying the best prices for them (e.g. peelers to a veneer mill, cedar poles to a pole mill, etc.). Don’t forget to factor transportation costs and the volume of logs for a given sort.

**Hiring a Logger.** Investigate markets for logging services just as you would mills. A skilled logger is often worth paying extra for, but it is still smart to shop around for the best combination of logging price and quality. Those costs come directly from your profit. Check around for the going prices for logging your type of site in your locale.

Occasionally, a landowner and logger agree to split the money for the logs “50-50”. Be sure to do the math. Such 50-50 agreements may make some sense if prices are comparatively low or logging costs are very high (e.g. helicopter logging or a small amount of low quality timber). But when the opposite is true, it makes less sense (at least for the forest owner). For example, if you have relatively easy ground that could be logged with a cat, the going price for logging a 40-acre parcel might be $150-$200/MBF. If you are getting $600/MBF for your logs and splitting 50/50 the logger would be getting $300/MBF!

All timber sales should have a written contract. Many forest owners value their forest nearly as much as their homes. Would you have a home built with a contractor on a handshake? Written timber sale agreements protect both the landowner and the logger, by clearly spelling out all expectations. They also provide a written vehicle to address log manufacturing standards and other issues affecting timber sale profitability.

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Log Manufacturing. One of the keys to getting the most value from a timber sale is to hire loggers who know how to get the most from your trees by minimizing high stumps and felling breakage, then manufacturing the logs (cutting and trimming the fallen trees into logs) to reduce scaling deductions for log length, sweep, crook, stump pull, diagonal cuts, and other defects. For more information, see Increasing values through bucking practice: manufacturing logs (OSU, EC 1184).

Are You Paying to Haul Poor Logs? The size of a log load does not guarantee a minimum net scale. Scalers reduce the gross scale of a log by the amount of defect they measure. Many of the perceived differences in scaling come from defect deductions from stem decay or other factors. Are you hauling logs to the mill that lose over 50% of their value because of defect? Was it really worth paying to haul that log to the mill? A low quality log may be worth a lot more left on the forest floor contributing to organic matter, beneficial fungi, and nutrient cycling—thus helping the growth of future crop trees and timber sales. Logs on the forest floor also contribute to wildlife and other qualities most forest owners value highly. Be very specific with your logger about what you do and don’t want to haul to the mill, especially if the logger receives the same payment for a truckload of logs, regardless of whether they are pulp or well-manufacture sawlogs.

Hiring a Consulting Forester. Most studies have indicated that landowners who work with a consulting forester make more from their timber sales (even after paying the consulting fees) and are more satisfied with the work than if they do it on their own. Consulting foresters are often able to pay for them selves by: having a day-to-day feel for local timber markets; putting sales out on competitive bid (where appropriate); having a feel for the best timing of a timber sale to get best price; and following up on the sorts of details discussed in this article. Their knowledge and experience usually allow them to do this much more efficiently and effectively than an individual landowner could. Look for consulting foresters in the yellow pages, or check with your local Extension or state forestry office. Make sure they have a bachelor’s degree in forestry from an accredited forestry college or university and that they are free from conflicts of interest. You should also check references and whether they are members in good standing of professional associations such as the Association of Consulting Foresters. For a directory of Idaho consulting foresters, check the UI Extension forestry web site www.its.uidaho.edu/extforest/wherecompanies.

Tax Considerations. Are you paying more tax on your timber harvest income than required? You can save a lot of money on your timber sale depending on how you treat the income at tax time. To the extent you treat your forest property as an active business (at least for tax purposes), you can also deduct forest management expenses. For more details on this topic, see Forestland Taxes in Idaho (UI, EXT 766) or the UI video of the same title. A new forest taxation web site also provides many insights on this topic (www.fnr.purdue.edu/ttax).

Silviculture. Typically we look at the value of forest products we are harvesting now. But what about future timber sales? Thoughtful decisions on leaving the best crop or seed trees after a thinning and prompt reforestation of your most desired species are essential if you want to increase the quality and quantity of wood from future harvests. You may also want to consider value added silviculture (e.g. pruning, fertilization) to increase returns on stands where these practices are warranted and practices to increase “returns” to other values (wildlife, recreation, etc.) as well.

Forest Certification? This is a relatively new phenomenon, but in theory, landowners could get a premium for logs from forests that can be certified as being managed sustainably. No premiums are available yet, but it may develop in the future. It could become a mill specification (just like preferred lengths) for mills trying to sell to companies that require certified wood. Oregon State University has an excellent Extension publication on this topic titled Understanding Forest Certification (OSU, FS 329). There are also web sites where you can explore this topic further (e.g. the Forest Stewardship Council at www.fscoax.org/principal.htm).
Carbon Credits? If you are planning to plant tree seedlings after a harvest, could you get income for the carbon they fix in the form of wood? At the recent NIPF Foresters Workshop, there was a lot of discussion about industries that are willing to pay landowners for the carbon that trees fix to mitigate the carbon they send into the atmosphere as a result of manufacturing activities. This is relatively new, but it is something to keep an eye on.

Timber sales profitability is not simply a matter of fixing one problem. It is about careful attention to a number of details that add up to higher returns. One of the reasons forest management plans and a timber sale agreements are important is because they help you track these details by writing them down. Even if income is not as critical, increased timber sale profits can be reinvested in your forest to enhance other values.

This article outlines some basic concepts. Experienced consulting foresters and landowners can probably share even more ways to increase profitability from your timber sales. Extension publications can also help you on the various topics discussed here. In addition to the previously referenced publications, consider reviewing: Marketing woodland products (WSU, EB 964), Developing a marketing strategy for woodland owners: initial considerations (OSU, EC 1130), Selling woodland timber: contract decisions (UI, EXT 759), and Contracts for woodland owners & Christmas tree growers (OSU, EC 1192). Most of these are available through local University of Idaho Cooperative Extension Offices.

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