**DATES**  
**To Remember**

**Workshop Announcement**

**Ties to the Land: Keeping Family Forests and Farms in the Family**

A Workshop for Families with Rural Land-based Businesses

**Date:** Tuesday, November 7, 2006  
**Time:** 2:00 to 5:00 pm  
**Location:** OSU Extension Office, Baker County Fairgrounds, the Big Room, 2610 Grove St., Baker City, OR  Phone: 541-523-6418  
**Cost:** Workshop will be $50; $10 per additional family member. Will include refreshments, and a copy of the workbook: *Ties to the Land: Your Family Forest Heritage* ($45 value).

**Speakers:**  
Clint Bentz, CPA, CMA, Partner, Boldt Carlisle & Smith, LLC Salem, Oregon. Chairman, American Tree Farm System and family forest owner/manager.

Mark Green, Director, A.E. Coleman Chair in Family Business, OSU Director, Austin Family Business Program

Few challenges that family forestland owners, farmers, winemakers, and other land-based family businesses face are more important than the issue of passing the business and its supporting land base on to the following generation. Today, 50% of Oregon’s small forestland owners are 65 or older. Many small landowners want to preserve their family lands but don’t know how to involve family members in ownership and operation of their small land-based businesses. Lawyers and accountants are skilled at addressing technical aspects of inter-generational transition through business and legal mechanisms, including trusts, estates, and...
and family corporations. But for families, the real challenge may not be technical issues, but communication. Without informed communication, personal relationships and family emotions may prevent full and honest exploration of the options, and families may fail to meet their goal of passing the land on intact.

This Workshop explores the human side of estate planning, focusing on ways to maintain family ties to the land from generation to generation. The Workshop will build awareness of key challenges facing family businesses and motivate families to address them. The Workshop is a mix of presentations from leading experts, and practical exercises to help families develop some techniques needed to address tough issues. Each family will receive a copy of the new companion workbook & DVD Ties to the Land designed to help families continue to improve and direct their communications at home. Professionals will learn techniques for helping families bridge communication gaps.

For more information, or to register visit www.familybusinessonline.org/programs/workshop_calendar.aspx
Or call 800-859-7609 or 541-7373-3326
Or call OSU, Union County Extension Office at 541-963-1010 or OSU, Baker County Extension Office at 541-523-6418.

Sponsors: OSU Union and Baker County Forestry Extension, and the Austin Family Business Program.

Oregon Forest Resources Institute (OFRI) co-sponsored conferences on the horizon

Oregon Woody Biomass: Opportunities, Barriers and Breakthroughs
January 3, 2007
World Forestry Center, Miller Hall, Portland, OR

This all-day conference will take a close look at opportunities for the conversion of woody biomass from Oregon’s forests into “green” energy, biofuels and other bioproducts. It will examine some short-term potential for moving Oregon forward in developing a biomass industry tied to the removal of woody biomass from overcrowded forests. The use of biomass from forest thinning would address these challenging needs:

✦ Restoring forest health, fire resilience and wildlife habitat
✦ Helping meet the state’s goals for renewable energy, providing jobs, and revitalizing rural economies

Go to the Oregon Forest Resources Institute’s website after November 1st for more information (www.oregonforests.org) on this program and the following:

Forests, Carbon and Climate Change
February 13-14, 2007
OSU Alumni Center, Corvallis

Although there is not yet consensus about the nature or causes of global climate change, the concern about potential effects is real, and policies are being developed at every level to address it. Oregon is a forest-rich state, poised with opportunities for forests, forestry and forest product enterprises to assume positive roles in maintaining a livable climate. The day-and-a-half conference will examine many contributions forests and wood products make to sequester the atmospheric carbon that plays a significant role in global climate. It will also explore:

✦ Policies that ensure that forests remain in forest use so that their contributions to clean air and livable climate are not diminished.
✦ The role of products
made from wood in sequestering carbon and keeping it out of the atmosphere (especially in contrast to fossil fuel-intensive products).

- The importance of reducing the vulnerability of forests to uncharacteristic fires that put large amounts of carbon in the atmosphere.
- The potential for global climate change to increase the susceptibility of forests to insects, disease and uncharacteristic fir.

## Forest industry directory helps buyers and sellers get together

By Scott Leavengood

Marketing—it’s high on the priority list of many family forest owners. As we all know, the Northwest forest products industry has undergone dramatic changes in the last decade or so. Many existing mills have retooled to process a narrower range of log diameters and species. The result has been that many landowners report difficulties in finding buyers for large-diameter, small-diameter or off-species logs, not to mention any of the host of non-timber forest products on their lands. To further complicate things, existing databases and directories are many years old.

To address these challenges, the Oregon Small Woodlands Association (OSWA), Oregon State University Forestry Extension and the Northwest Wood Products Association received funding from the Oregon Forest Resources Institute to explore marketing opportunities.

One of the outcomes of this project is an online directory of the Oregon forest industry. The Oregon Forest Industry Directory (OFID) at [www.orforestdirectory.com](http://www.orforestdirectory.com) contains over 1,600 listings for all sectors of Oregon’s forest industry including sawmills (large and small), plywood mills, composite products (e.g., particleboard or MDF), cabinet and furni-

### Delivered

**LOG MARKET REPORT  $/1,000 board feet  October 15, 2006**

<table>
<thead>
<tr>
<th>Area</th>
<th>Species</th>
<th>Diameter 6-11&quot;</th>
<th>Diameter 12-17&quot;</th>
<th>Diameter 18-24&quot;</th>
<th>Diameter 25+&quot;</th>
<th>Grand fir /White fir</th>
<th>Lodgepole Pine</th>
<th>Engelmann Spruce</th>
<th>Pulp/chip Logs</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Umatilla/Pendleton/Lewiston</em></td>
<td>Douglas-fir /Larch</td>
<td>$400</td>
<td>$250</td>
<td>$400</td>
<td>$500</td>
<td>$600</td>
<td>$300-325</td>
<td>$275</td>
<td>$275</td>
</tr>
<tr>
<td></td>
<td>Ponderosa Pine</td>
<td>12-17&quot;</td>
<td>18-24&quot;</td>
<td>25+&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>La Grande/Egin/Joseph</em></td>
<td>Douglas-fir /Larch</td>
<td>$350</td>
<td>$275</td>
<td>$400</td>
<td>$540</td>
<td>call</td>
<td></td>
<td>$340</td>
<td>$320-340</td>
</tr>
<tr>
<td></td>
<td>Ponderosa Pine</td>
<td>12-17&quot;</td>
<td>18+&quot;</td>
<td>20-24&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Burns/John Day</em></td>
<td>Douglas-fir /Larch</td>
<td>$460-505</td>
<td>$210</td>
<td>$370</td>
<td>$500</td>
<td>$575</td>
<td>$330</td>
<td>$275</td>
<td>$275</td>
</tr>
<tr>
<td></td>
<td>Ponderosa Pine</td>
<td>5-7&quot;</td>
<td>8-11&quot;</td>
<td>12-17&quot;</td>
<td>18+&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Oregon Log Market Report, Editor John Lindberg, ph 360-693-6766, fax 360-694-8466, logmkt@comcast.net
Users can search the directory by any combination of company name, county (or region), species used, products purchased, products produced, residue (chips, bark, etc.) available or services provided.

Landowners are using the directory to find log buyers; custom sawmillers are using the directory to find sources of logs; furniture makers are using the directory to find sources of lumber; consumers are using the directory to find finished goods. And the list goes on. The directory also includes a For Sale/Wanted function that companies and individuals are using to list products for sale or items wanted.

Since early in 2005, the site has registered over 30,000 “hits” each month.

For anyone familiar with directories, an obvious concern is how the site will be maintained. This is always a challenge with directories, as they are outdated within minutes of being printed. Of course, one advantage of web-based directories is that they can be continuously updated. Further, OFID is user-maintainable. Those listed in the directory can request a username and password that allows them to update their listing at any time. Updates are being made daily and occur as soon as the user clicks “submit.” To add a listing to the directory, users need only fill out a form; new entries become active in the directory following approval by the database administrator. There is no charge to be listed in the directory.

Perhaps the greatest challenge for the directory now is getting existing entries to add detail to their listing and those not on the list to add their information. Like all new ventures, it takes time to spread the word and many potential users will play “wait and see” before investing any energy. However, the network effect in marketing shows that the usefulness of a communication tool such as this grows dramatically once people begin to use it—to search for and contact firms, to list their information and to post items wanted or for sale, for example.

A number of features may be added to the directory. One such feature would include a way to aggregate landowner inventory of timber and non-timber products. For example, someone searching for big leaf maple logs in Marion, Polk and Yamhill counties could view a list of the total available inventory by log diameter and grade, and could fill out a form to email landowners to let them know what he/she is looking for.

A group of landowners out of Washington County is discussing markets for non-timber products. It would be helpful to have detailed information, including photos, of what constitutes merchantable versus non-merchantable products, how to manage for the products, how to inventory what you have, how to harvest and when, and to have access to a list of buyers. Whether this information can be included on this website or a separate one remains a question.

Other ideas include adding a bulletin board to facilitate discussion on specific topics and providing search results (or the entire directory) in a printable format.

So what are you waiting for? Take the directory for a test drive at www.orforestdirectory.com. (see companion article, p.9)

Scott Leavengood is the director of the Oregon Wood Innovation Center at Oregon State University and OFID directory administrator, located in Corvallis. He can be reached at 541-737-4212 or scott.leavengood@oregonstate.edu.
Good Rocks/ Bad Rocks: The Latest Piece in the Puzzle of Natural Forest Fertility
By Ron Mahoney

Those of us that spend part of every day in the quest for new information and new ways to analyze it are constantly discovering scientific facts and processes that, as far as we can determine, no one else knows. We also find that people seem to know a lot of things that just aren’t true. This is a story about discovery and changing what we thought we knew to be true.

Imagine that you are the new owner or manager of a tract of forestland, about 60 acres sloping moderately to the northeast. The forest had been logged twice in the past 50 years, most recently about 10 years ago. Currently there is about 40 acres of mostly second growth grand fir and Douglas-fir with scattered western red cedar in the draws. The stumps show that ponderosa pine and western larch were the species removed along with some larger Douglas-fir. The remaining 20 acres was clearcut and broadcast burned 10 years ago, and planted to ponderosa pine and Douglas-fir.

The site is a cedar/pachistima habitat-type located in the northern Idaho pan-handle. This habitat type is about as good as you can get for the species present, as the even more moist hemlock series of habitat-types is usually a little cooler with a shorter growing season. Sounds pretty good so far, right? Well actually, your first impression is that this is the skankiest, skuzziest, beat-up rag-patch of an excuse for a forest you have ever seen. Subsequent impressions as you examine tree conditions more closely are that your first impression was too generous. Most of the second-growth has chlorotic, yellow-green foliage, abnormally short needles, thin crowns with poor needle retention, and evidence of current or past bark-beetle attacks. Many trees are dying from the top down, and 5-10 trees per acre have died in recent years. Many of the dead trees have toppled and show evidence of advanced root disease. In the adjacent plantation, survival is only about 35% and mostly ponderosa pine. The Douglas-fir that didn’t die are stunted, yellowish, and poorly formed. The pine are little better, with short, yellowed needles and an average height of only 2 feet in 10 years (one might expect at least 12-18 feet of growth in these conditions). There is no evidence of animal damage, and competing vegetation is sparse. In fact, it seems that the grasses and shrubs are not doing any better than the trees.

Now remember, this is considered a premium growing site based on habitat-type, with lots of precipitation. And we all know that water is the most important limiting factoring tree survival and growth in summer-dry Idaho.

Next, you look at several road cuts to see if there are any hardpans, shallow soil, or other soil factors that may limit water availability. You find a shallow aluvial layer of mixed loess and volcanic ash over a base soil with some sort of hardened, layered “parent material” rock that is well fragmented. Exposed tree roots show deep penetration, and the soil generally appears to have adequate soil moisture conditions for trees based on what we learned in our college courses. Most foresters would conclude that poor forestry and logging practices are at fault, but that would be incorrect based on recent scientific discoveries.
In work done by the Intermountain Forest Tree Nutrition Cooperative (IFTNC), directed by UI Professor Jim Moore, it was recognized that nitrogen fertilization alone sometimes increased mortality from root disease and that adding potassium to nitrogen fertilization had a dramatic, positive effect on growth and mortality reduction. They began experiments to examine the effect of fertilization on root chemistry, because mortality was primarily due to fungal root disease infections. Significant reductions in root-sugar concentrations were found at one location when combinations of potassium and sulfur were combined with nitrogen, whereas nitrogen alone increased root-sugars and the incidence and spread of root disease infections. While root-sugars increased in many locations, it did not happen at all sites. Current research includes increasing the number of test locations and testing fertilizer blends that include micro-nutrients. The IFTNC also studied the nutritional ecology of commercial tree species and found that shade-tolerant trees such as grand fir and Douglas-fir, which are more prone to root disease, have higher nutrient demands. Other scientists have shown that firs produce higher sugar ratios than intolerant species such as ponderosa pine and western larch.

These discoveries helped explain the mortality and other health effects of various fertilization applications, and the susceptibility of firs and resistance of pines and larch to root disease. It did little to explain the apparent nutritional deficiency and poor health of forests such as the one described earlier, especially where general site conditions all seemed so favorable.

The IFTNC research staff began to suspect that some natural soil nutritional factor must be limiting. About this time, Professor Moore and his colleagues were studying soil maps of the region and noticed that many of the soil types characterized by a surface layer of loess (windblown deposits of silty soil; the Palouse region is typical) were classified as the same soil type but were actually underlain by several different, buried parent material rock types. Jim took several geologic maps and, as suggested by several cooperators, overlaid them with large scale maps of root disease “hotspots” in northern Idaho. BINGO! Highly infected areas corresponded closely with areas of sedimentary rocks such as sandstones, low infections generally matched areas of basalt parent material, and moderately infected forests were underlain with granitic parent materials. A closer look showed that the variations in these matches could be accounted for by looking at the potassium content within these basic rock types. Furthermore, the depth and nature of the loess or volcanic ash depositions generally influences the timing and extent of root disease and other ill effects of inadequate soil nutrition. NEW CONCLUSION: Bad Rocks!! The nutritional deficiencies of the soil are the primary factor underlying the increasingly poor health of the forest tract described earlier.

The general, rather than absolute, essence of the initial and new conclusions is while parent material rocks have a pervasive and overriding effect, silvicultural practices can accelerate or diminish this effect. In this instance, stand composition changed due to selective harvests that cut
less nutrient demanding, and more resistant, pines and larch and left high nutrient demanding, susceptible firs. Additionally, the clearcut was broadcast burned, reducing organic matter and depth to the nutrient-deficient parent material and exporting nutrients via smoke and erosion. Retention of intolerant pines and larch, plus conservation of organic matter might have moderated the effect of subsoil nutritional deficiencies.

Many resource agencies, private industries, and individual landowners have struggled to renovate degenerated forest stands, with mixed results. We now know that while management and logging practices have an influence, situations with “bad rocks” need to be identified before we have costly, repeated planting and stand improvement failures. Ongoing fertilization trials will test whether forest health and productivity can be dramatically improved in these situations. Preliminary results are encouraging, but not enough time has passed for scientific conclusions. Understanding the nutritional status of forestlands is also critical to management planning including decisions to purchase or retain forests where health and productivity are primary objectives.

This information first appeared in Woodland NOTES, Vol. 8, No. 2

About the Author: Dr. Ron Mahoney is an Extension Forester and Professor at the University of Idaho.

Study identifies opportunities for using woody biomass from thinning

A study just completed for OFRI takes a close look at opportunities for the conversion of woody biomass from Oregon’s forests into “green” energy, biofuels and other bio-products.

The study identifies some short-term potential for moving Oregon forward in developing a biomass industry tied to the removal of woody biomass from overcrowded forests. The use of biomass from forest thinning would address three challenging needs: restoring forest health, fir resilience, and wildlife habitat; helping meet the state’s goals for renewable energy; and revitalizing rural economies.

The study found that about 15 percent of Oregon’s forestland has the potential to provide forest biomass by thinning forest stands to reduce the risk of uncharacteristic fire. Thinning these acres over 20 years could produce a million tons of woody biomass per year. Not counting the merchantable saw timber. That’s enough to generate about 150 megawatts of electricity.

The most economically and technically feasible short-term use of the woody biomass produced through thinning is for the generation of electricity and production of process heat. Over the longer term, reduction of reliance on fossil fuels through increased use of biofuels and other bio-products made from woody biomass could be the more significant benefit.

“The OFRI Board and staff appreciate the thorough and professional work done by the Bio-Energy Project team including researchers and analysts from Mason, Bruce & Girard, Inc.; Pacific Energy Systems, Inc.; OSU Colleges of Forestry and Agricultural Sciences; and Dr. Jim Bowyer of the University of Minnesota,” said Mike Cloughesy, OFRI’s director of forestry. “We also appreciate the input of the Oregon Forest Biomass Working Group.”

To order a summary of the biomass study or the complete 425-page report,
visit the Publications page on OFRI’s website at www.oregonforests.org. You also can request copies by phone (1-800-719-9195) or e-mail (info@ofri.com).

OFRI Outlook, Summer 2006

Global Markets and Western Forests
By Chris Knowles
OWIC Program Assistant

The May/June 2006 issue of Western Forester was devoted to the impact of global markets on western forests. The issue includes articles from researchers at Oregon State University, the University of Washington, and Forintek Canada Corp. and an industry manager at Weyerhaeuser Corp.

The issue begins with an overview written by Dr. Erick Hansen, OSU Professor of forest products marketing. Dr. Hansen discusses the competitiveness of Pacific Northwest operations, log and lumber exports, the major trade flows to the U.S., and what the future may hold. Also included are articles about Japan, South America, India, Canada, and China. The issue also includes an article by Scott Leavengood, Director of the Oregon Wood Innovation Center, on how the industry can remain competitive through innovation.

The full issue can be viewed at: http://www.forestry.org/pdf/june06.pdf

Wood Innovation Center, Vol. 1:2

Declining housing market: How does it impact the industry?
Chris Knowles
OWIC Program Assistant

A recent report from the National Association of Realtors forecasts that home sales will decline for the remainder of 2006 resulting from an inventory and price imbalance.

The report indicates that the most immediate impact will be on the pricing, with a temporary dip in house prices likely. Forecasts show that 2006 existing home sales will fall 7.6%. New home sales for 2006 are forecast to be the fourth highest year on record, despite a forecast of a 16.1% decrease. New housing starts are also projected to decline by 9.6% in 2006.

According to the Softwood Lumber Markets Forecast in 2006 Following Record Demand Year report recently released by the Western Wood Products Association (WWPA), housing construction used a record 27.8 billion board feet of lumber in 2005, representing nearly 44 percent of total lumber demand. Repair and remodeling accounted for more than 20 billion board feet, up 3.45 from 2004. The slowing housing construction market has resulted in a forecasted 2.1% drop in total lumber demand to 62.6 billion board feet.

While the demand for lumber for use in new housing construction is forecast to decline in 2006, the forecast shows that lumber use in other markets (i.e. industrial and nonresidential construction) will continue small levels of growth in 2006. The report forecasts production will decline in 2006 in the west (18.8 billion board feet in 2006 down 2.6% from 2005) and the south (18.5 billion board feet down 2.4% from 2005).

Despite a new softwood lumber deal between the US and Canada, lumber prices have decreased sharply since January, according to a report by Reuters. A surplus of lumber is accumulating in the US as a result of Canadian manufacturers shipping wood to the US to beat the October 1 deadline in the
new agreement. This surplus in supply, combined with decreased demand has resulted in declining prices. Lumber shipments prior to implementation of the new deal will be subject to a 10.8 percent duty, with approximately 80 percent returned to Canadian producers.

However, once the new deal is implemented, the export tax will increase to 15% when U.S. prices drop below a composite index set by Random Lengths.

Full versions of the reports can be viewed at:

National Association of Realtors: http://www.realtor.org/PublicAffairsWeb.nsf/Pages/SeptemberForecast07
Western Wood Products Association: http://www.wwpa.org/newsroom.htm
Reuters: http://today.reuters.com/ and search for softwood lumber prices

_Wood Innovation Center vol. 1:2_

**Mild Winters Aggravate Western Canadian Beetle Infestations**

The mountain pine beetle has infested an area in British Columbia three times the size of the state of Maryland, devastating swaths of lodgepole pines and reshaping the future of the forest and the communities in it. The Canadian Forest Service calls it the largest known insect infestation in North American history.

Scientists fear the beetle will cross the Rocky Mountains and sweep across the Northern continent into areas where it used to be killed by severe cold, but where winters are now comparatively mild. “We are seeing this pine beetle do things that have never been recorded before,” according to a Canadian forestry official. “They are attacking younger trees, and attacking timber in altitudes that have never been seen before.”

_National Woodlands Spring 2006_

**More about**
The Oregon Forest Industry Directory
http://www.orforestdirectory.com

The NEW Oregon Forest Industry Directory is helping to connect woodland owners, wood products manufacturers, industry consultants and anyone else interested in Oregon’s forest industry. Some of the potential audiences and uses for the Directory include:

*Small woodland owners will find:*
  - **Log buyers** that buy large and small diameter logs, nontraditional species, and buyers’ preferred diameters and lengths
  - **Niche markets** by locating buyers of logs for log homes, utility poles, ‘character logs’ for furniture, and buyers for non-timber forest products.

*Sawmills will find:*
  - **Suppliers** by locating the private woodland owners in the region with logs for sale
  - **Customers** interested in buying the type of lumber you produce
  - **Buyers for waste products/downfall** such as sawdust, shavings, bark, and low-grade lumber

*Furniture makers and Cabinetmakers will find:*
  - **Suppliers** that have the sort of lumber you need
  - **Opportunities for outsourcing or partnerships** such as custom machining, kiln drying and finishing
  - **Buyers for waste products/downfall** such as low-grade lumber or trim ends

**Other Audiences** –
  - Architects can find firms that provide certified wood products or large timbers
  - The general public can search for local custom sawyers (for example, for that downed walnut tree), furniture and cabi-
net makers, boughs for wreaths, etc. All users are welcome to post items they would like to buy or sell in the classified Ads.

Contact the Oregon Wood Innovation Center (541-737-4212; Scott.Leavengood@oregonstate.edu) with comments, questions or suggestions.

**Master Woodland Managers Graduate!**

On October 20th, after seven months and 82 hours of training, 15 folks from northeast Oregon graduated from OSU Extension’s Master Woodland Manager Program. They are now ready to participate in volunteer activities designed to meet several goals, such as working with fellow woodland owners to identify management opportunities and how to tap into local assistance sources or working with schools and youth programs or making their property available for tours and demonstrations or assisting extension foresters with applied research and education. Those completing the course are:

- Tom and Cindy Beechinor, Walla Walla
- Gene and Marge Bieraugel, Flora
  - Barry Chapman, Baker City
  - Helen Mary and John Ellis, Enterprise
  - Eileen Gyllenberg, Baker City
  - Chris Heffernan, North Powder
  - Roger Mortimore, Heppner
- Darwin Short, Union
- Chris Silbernagel, La Grande
- Darwin (Butch) Tansey, Wallowa
- Bill Toop, John Day
- Bert Vanderwall, Baker City

This was a really great group of folks, heralding from the wide reaches of north-east Oregon. As is typical of woodland owners, each has different interests and objectives for owning forestland. Bob Parker and I thoroughly enjoyed providing this opportunity and interacting with such an outstanding cadre of woodland owners. We look forward to the many volunteer services they will provide as we all work towards improving the management, health and economic viability of forestland ownerships in this part of the world. Congratulations!

**Long time supporter passes...**

On September 24th Bill Oberteuffer passed away. Bill and his wife Margaret (she died earlier) were long-time supporters of the Extension Forestry program in northeast Oregon. Both were retired teachers from the Portland area and moved to their 160 acre Stubblefield Mountain property in 1979. Later they purchased an adjacent 80 acres. Over the years they methodically worked to improve the pasture and forest land resources on the property. Bill was a founding member of the Union County Small Woodlands Association, as well as being involved in many other natural resource related organizations. They were both proponents of life long learning and advancing knowledge and education to others. It’s not surprising then that they were constantly involved in hosting tours for youth, other woodland owners, loggers, professional foresters as well as anyone interested from the general public. They worked closely with OSU Extension Forestry, Oregon Department of Forestry and other local groups throughout their tenure on the land. When they finally retired...
and moved to town in 1993 they donated 113 acres of forestland to the OSU College of Forestry, and thus the Oberteuffer Research and Education Forest was born.

We've been actively involved in using the forest as an education site for tours and making investments in the property to improve its use as a research and education forest. In that vein, reforestation trials and demonstrations have been installed, the road has been improved for better access and drainage, the pond fenced, and an uneven age management demo is currently being set up. Earlier, Bill established an endowment at OSU to help with property maintenance and recently donated $20,000 for construction of a building and interpretive trail. Bill and Margaret’s vision was to leave a resource legacy that would advance small woodland management long into the future. They will be missed by many of us as advocates and friends. If you would like to contribute to this effort please call me for details or send your donation to the OSU Union County Extension office for the Oberteuffer Research and Education Forest.

**Return of the King: Western White Pine**

Western white pine can grow on a wide variety of sites. Its range extends from California to British Columbia and from the Pacific Coast east to Montana. It can grow on very wet sites (on the margins of bogs), fairly dry sites and everything in between. Its elevation range is from about sea level to more than 10,000 feet (in the southern part of its range); it grows better than many other species in frost pockets and is more resistant to damage from heavy snow than Douglas-fir or western hemlock.

Western white pine is classified as “tolerant” to several common root diseases and its growth rate can equal, and on some sites surpass, that of Douglas-fir. It can tolerate low nutrient conditions, which makes it a potential species for planting on problem sites such as landfills or sites where the topsoil has been removed. Old-growth trees of western white pine were the basis of forest industry in many areas in the past – especially in the Inland Empire region of northeast Washington, northern Idaho, southeastern British Columbia and western Montana.

So, why don’t we see western white pine on more sites and why isn’t it more widely planted? The answer is that a lethal disease – white pine blister rust – was introduced into British Columbia from France in 1910; this disease eventually resulted in the death of most western white pine. However, some pines were resistant to the disease, and after many millions of dollars and years of research, disease-resistant trees have been identified and seedlings from these resistant sources are available for planting.

Although seedlings were produced from disease-resistant trees 25 years ago, more recent testing programs have produced seedlings with more consistent resistance, and resistant seedlings have become more widely available (western white pine seedlings available from public agencies are blister-rust resistant; if you get white pine seedlings from other sources, be sure to ask if they are blister-rust resistant). For more information on the disease, breeding programs for disease resistance, and some excellent pictures of what blister rust looks like, visit [www.fs.fed.us/r6/dorena](http://www.fs.fed.us/r6/dorena).

You have now obtained blister-rust resistant seedlings from a source appropriate to your area and are ready to help reintroduce this species back into its native range. There is one very important piece of
information you need to know: Blister-rust resistance of western white pine is not complete – that is, some of the seedlings you plant will die of blister rust even though the stock comes from a program that has certified its resistance. Some of the lack of resistance is planned so the tree species has wide diversity and won’t be killed if the fungus evolves to a strain that the testing programs haven’t evaluated. And part of the lack of resistance is due to the impossibility of testing for all possible strains of rust (think of the different strains of flu and how the flu vaccines change every year) and the underlying nature of the resistance available to this introduced pathogen. The level of resistance, infection and survival will vary depending on the site hazard.

But management can greatly improve the odds of these trees surviving. The key is to understand that the fungus gets into the tree through infected needles, generally on branches on the lower eight feet of the stem, so branch pruning is very effective in preventing infections from reaching the stem (the disease can cause cankers on the stem that girdle the tree). At the time of planting, clip off any branches that are right at ground-line – these are very important sources of early infection and hard to see later if they are partially buried and vegetation develops.

Next, when trees are 5’ - 10’ tall, prune no higher than 50 percent of a tree’s height to maintain a healthy crown. Then re-prune again two to fours years later and continue to re-prune up to 50 percent of tree’s height until you have removed branches up to eight feet on the stem (probably three prunings).

Pruning prevents future infection from the needles and also removes branches that are already infected, but the infection has not yet reached the main bole. You will still lose some trees, but at the time of your first thinning you can select to favor the disease-free trees. Once you have started pruning the trees for blister rust, you may decide to continue pruning to increase the future value of the lower log (or half log). For more information on pruning and white pine blister rust, see PNW 584 (in publications of interest)

The disease has an alternate host, *Ribes* or currant, and some of you may have heard of the large-scale efforts by the CCC crews in the 1930’s to pull or cut *Ribes* to save the pines. Those efforts were not very successful, but we can help keep inoculum levels low by not planting *Ribes* and by cutting or controlling it in the areas of plantings.

In addition, we can make the environment less favorable for the fungus by encouraging greater air movement and drier conditions (less favorable for the fungus) by initially controlling tall shrubby vegetation during site preparation and later by pruning.

So, this sounds like a lot of work – finding disease resistant stock and then having to prune several times. Yes it is, and to obtain the best success on sites with moderate to high levels of rust hazard, you must commit to pruning when you plant western white pine. But the species’ excellent growth rates, tolerance to root disease, resistance to frost and heavy snows, and ability to grow on a wide range of soil conditions make it an excellent choice for some problem
sites. In many areas good markets exist for pine sawtimber.

In addition, the attractive blue-green foliage adds a different touch of color in our forests and the foliage may have value for floral or holiday greens. Plus, you’ll be able to take pride in helping bring this magnificent species back into our forested landscapes.

For more information on western white pine look online at [www.na.fs.fed.us/spfo/pubs/silvics_manual/Volume_1/pinus/monticola.htm](http://www.na.fs.fed.us/spfo/pubs/silvics_manual/Volume_1/pinus/monticola.htm) or type “western white pine” + Silviculture into your browser.

*Adapted from an article by Constance Harrington, Northwest Woodlands, Spring 2005*

**Update to last issues herbicide chart…**

Our last issue included a chart that included the effectiveness of several herbicides on target vegetation (p.12). I have a few updates/corrections after a conversation with a forester for Wilber-Ellis.

1. For 2,4-D; Snowberry change (S) to (I); Ceanothus change (S) to (I).
2. For triclopyr ester: Thistles, change (-) to (S)
3. For Imazapyr: grasses, perennial, change (S) to (I-R); grasses/forbs, annual change (S) to (I-R); broadleaf herbs change (S) to (I); and sedges, (e.g. elk sedge) change (S) to (I-R)

Under Common and Trade names: Imazapyr, (change Aresenal to Arsenal AC) Sulfometuron (delete Oust XP custom fill)

**We lost another key woodland owner in 2006.**

Howard Johnson passed away earlier in 2006 at age 92. Howard and Muriel Johnson’s award winning forest property in Wallowa County has been the focus of many, many tours over the years. Howard was a Master Woodland Manager and a staunch supporter of the OSU Extension Forestry Program. His work and effective communication style influenced hundreds of folks, such as woodland owners, loggers, foresters, politicians, and conservationists regarding the benefits of active management and land stewardship.

Many of us will miss him for his important contributions and as a friend.

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**Ask the Expert**

Have questions related to wood? The faculty of the Wood Science and Engineering Department at OSU have the expertise to handle almost any question about wood. Simply submit your question using this website: [http://owic.oregonstate.edu/askexpert.php](http://owic.oregonstate.edu/askexpert.php).

Please be as specific as possible. The following example shows a recent ‘Ask the Expert’ question:

**Q:** When cutting large timbers, say 12 x 12, is it better to ‘box the heart’ or try to avoid having the heart center (pith) in the timber?

**A:** Given the smaller logs generally available to sawmills today, we most often see large timbers with boxed-heart (that is, timbers that contain the pith). Given normal shrinkage in wood, heart checks can be expected to develop in such timbers; research has shown that such checks result in relatively minor reductions in strength. That said, past experience with using large timbers has shown that logs that are “free of heart center” (FOHC) are more stable in use. Consult a licensed structural engineer to be sure the timbers you are using are sufficient to carry the planned load for a structure.

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Publications of Interest

New or recently revised OSU Extension Pubs

- **PNW 581, Land measurement & survey.** New, April 2006. $2.50
- **EC 1151, Taxes & assessments on Oregon forest-land & timber.** Revised March 2006. $4.00
- **EC 1518, Forest certification in North America.** Revised February 2006. $3.00
- **EM 8403, Wood preservation and wood products treatment training manual.** Revised September 2006. $3.50
- **EC 1582, Timber harvesting options for woodland owners.** Revised August 2006. $2.50

PNW 584. **NEW. Pruning western white pine.** You can check the OSU publication website at [http://extension.oregonstate.edu/eesc](http://extension.oregonstate.edu/eesc) to order or call 1-800-561-6719. You can search by publication number, title or topic. Wire bound, pocket sized. $5.00

**Pests of the native California conifers.** California Natural History Guide Series No. 70, University of California Press, Berkeley, CA 94720. [www.ucpress.edu](http://www.ucpress.edu). This is an excellent resource for identifying and managing most of the forest pests common to Oregon forests. It’s filled with photos for identification and includes management guidelines and references for further information.

The Oregon Forest Resources Institute recently published two wire bound resource guides, *A guide to Oregon’s forest wildlife and Identifying priority plants & animals and their habitats*. Order from: Oregon Forest Resources Institute, 317 SW Sixth Street, Suite 400, Portland, OR 97204. 971-673-2944 or 1-800-719-9195 or [www.oregonforests.org](http://www.oregonforests.org) or [info@ofri.com](mailto:info@ofri.com).

**Trees to know in Oregon** has been recently revised and updated with full color photographs. This publication includes all native Oregon conifers and hardwoods, and some common introduced species. The keys are easy to use, there are good species specific descriptions and information about where they grow. It’s an excellent resource for anyone interested in identifying trees. Contact your nearest Extension Office for a copy. $12.00

**After the burn: assessing and managing your forestland after a wildfire** (Station Bulletin No. 76) and **Protecting and landscaping homes in the wildland/urban interface** (Station Bulletin No. 67). Order from Idaho Forest, Wildlife and Range Experiment Station, College of Natural Resources, University of Idaho, Moscow, ID 83844-1130

OSU Extension Service, Union Co
10507 N McAlister Rd, Rm 9
La Grande, OR 97850

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